Assessment Report

Geophysical Report on a Large-Loop Transient Electromagnetic Survey

on the

Demers - Crazy Fox Property (Crazy Fox 1 - 3, BBB#1 - 4, BBB 6 - 8, Phaser 5 - 12) Kamloops Mining Division

N.T.S. 92P/9W Latitude 51^o 33' N Longitude 120^o 16' W UTM: 689000E, 5715000N, Grid Zone 10 (NAD 27)

> Owner/Operator: Cassidy Gold Corporation #220, 141 Victoria Street Kamloops, B.C. V2C 125

Dennis V. Woods, Ph.D., P. Eng. Consulting Geophysicist Date of Report: October 25, 2001

Christopher J. Wild, P.Eng. Consulting Geological Engineer Date Amended: February 7, 2002

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1.0 Introduction

1.1 Property Description and Location

The Demers – Crazy Fox Property covers approximately 850 hectares in the Demers Creek drainage, 11 kilometres northwest of Little Fort, B.C. and 100 kilometres north of Kamloops B.C. (Figure 1). The centre of the property sits at 51^o 33'N and 120^o 16'W, and 5715000mN and 689000mE, UTM Zone 10, (NAD 27).

The property consists of four modified grid mineral claims and 47 2-post mineral claims, all contiguous (Figure 2). Table I contains information on the individual claims of the Crazy Fox Group. The claims are 100% owned by Cassidy Gold Corp., subject to conditions of an option agreement with prospectors Lloyd Addie and Robert Bourdon of Nelson, B.C. Work described in this report is meant to apply one year of assessment to all the claims. No legal survey has been completed on the property.

Table 1

Crazy Fox Group Mineral Claims

Claim Name	Tenure No.	Units	Area (ha)	Expiry Date	NTS
Copper Craze	362600	1	25	May 29, 2002	92P/9
Fox 1	363261	1	25	May 29, 2002	92P/9
Fox 2	363262	1	25	May 29, 2002	92P/9
Fox 3	363263	1	25	May 29, 2002	92P/9
Fox 4	363264	1	25	May 29, 2002	92P/9
Fox 5	364257	1	25	May 29, 2002	92P/9
Fox 6	364258	1	25	May 29, 2002	92P/9
Fox 7	364259	1	25	May 29, 2002	92P/9
Fox 8	364260	1	25	May 29, 2002	92P/9
Fox 9	364261	1	25	May 29, 2002	92P/9
Fax 10	364262	1	25	May 29, 2002	92P/9
Fox 11	364696	1	25	May 29, 2002	92P/9
Fox 12	364697	1	25	May 29, 2002	92P/9
Fox 13	364698	1	25	May 29, 2002	92P/9
Fox 14	364699	1	25	May 29, 2002	92P/9
Fox 15	368538	1	25	May 29, 2003	92P/9
Fox 16	368539	1	25	May 29, 2003	92P/9
Fox 17	369751	1	25	May 29, 2002	92P/9
Fox 18	369752	1	25	May 29, 2002	92P/9
Keg #1	368433	1	25	May 29, 2002	92P/9
Keg #2	368434	1	25	May 29, 2002	92P/9
Keg #3	368435	1	25	May 29, 2002	92P/9
Keg #4	368436	1	25	May 29, 2002	92P/9
Keg #5	380587	1	25	May 29, 2002	92P/9
Keg #6	380588	1	25	May 29, 2002	922/9
868 #1	369747	1	25	May 29, 2003	92P/9
888 #2	369748	1	25	May 29, 2003	92P/9
888 #3	369749	1	25	May 29, 2003	92P/9
BBB #4	369750	1	25	May 29, 2003	92P/9
BB65	371103	1	25	May 29, 2003	92P/9
8866	371104	1	25	May 29, 2003	929/9

6687	371105	1	25	May 29, 2003	92P/9
8868	371106	1	25	May 29, 2003	92P/9
Phaser#1	372349	1	25	May 29, 2003	92P/9
Phaser#2	372350	1	25	May 29, 2003	92P/9
Phaser#3	372351	1	25	May 29, 2003	92P/9
Phaser#4	372352	1	25	May 29, 2003	92P/9
Phaser#5	372353	1	25	May 29, 2003	92P/9
Phaser#6	372354	1	25	May 29, 2003	92P/9
Phaser#7	372366	1	25	May 29, 2003	92P/9
Phaser#8	372356	1	25	May 29, 2003	92P/9
Phaser#9	372357	1	25	May 29, 2003	92P/9
Phaser#10	372358	1	25	May 29, 2003	92P/9
Phaser#11	372359	1	25	May 29, 2003	92P/9
Phaser#12	372360	1	25	May 29, 2003	92P/9
Crazy Fox 1	375102	18	450	May 29, 2004	92P/9
Crazy Fox 2	375103	12	300	May 29, 2004	92P/9
Crazy Fox 3	375104	20	500	May 29, 2004	92P/9
Crazy Fox 4	375105	10	250	Mary 29, 2004	92P/9
CF#1	378684	1	25	May 29, 2004	92P/9
CF #2	378685	1	25	May 29, 2004	92P/9

Expiry Date upon acceptance of work detailed in this report

2.3 Accessibility, Climate, Local Resources, Infrastructure and Physiography

To access to the property from Little Fort, head west on Highway 24 for 6 kilometres, turn right and head 15 kilometres north on the well-maintained Nehalliston Creek Forestry Road. A network of unmaintained logging roads and skid trails provide excellent access to most parts of the property.

Summers are generally warm and dry; winters are moderate with snow on the ground between late October to May.

The project area lies less than 100 kilometres by paved highway from Kamloops, the major supply centre for the region. Many services are available in Little Fort. The property is also close to the power grid.

The property is located in rolling hills and plateaux dotted with small lakes. Outcrop is limited. Elevations range from 1200-1450 metres. Extensive stands of fir and spruce cover the region making logging is the dominant land use. Approximately 40% of the property is clear-cut logged.

2.4 Property History

In 1997, the B.C. Geological Survey Branch carried out a drift exploration program in the Louis Creek – Chu Chua Creek area, resulting in the release of Open File 1998-6 (Bobrowsky et al). That release highlighted a large multi-element till geochemical anomaly in an area of no known mineral occurrences. Based on those results, L. Addie and R. Bourdon staked a number of claims and prospected for the source of the anomaly through 1998 and 1999.

During the 1999 field season, L. Addie and R. Bourdon conducted a work program on the property consisting of prospecting and sampling. A total of 29 till samples, 38 soil samples, 7 rock samples, and 2 stream sediment samples were collected and analyzed, confirming the presence of a large, multi-element geochemical anomaly on the claims (Bourdon and Addie, 2000).

In June 2000, the northern half of the property was optioned to Inmet Mining Corporation. Inmet conducted a program of linecutting, VLF-EM, and magnetic surveys as part of an effort to locate an

economic volcanogenic massive sulphide deposit (Burge, 2001). In addition, limited geological mapping, soil geochemistry, and lithogeochemistry was carried out as part of that effort.

Cassidy Gold Corporation optioned the southern part of the property (Fox Group) from Addie and Bourdon in August 2000. Cassidy then optioned the northern part (Crazy Fox Group) from Addie and Bourdon in June 2001 grouped both former groups into a new Crazy Fox Group with a common anniversary date of May 29th.

2.5 2001 Program

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Discovery Geophysics Inc. was contracted to carry out a large-loop transient electromagnetic survey on the Demers (Crazy Fox) Property on behalf of Cassidy Gold Corporation. A total of 6.95 kilometres was surveyed from 4 loop positions on a previously established grid, to follow-up on strong magnetic and geochemical anomalies.





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INTRODUCTION

During the period 2 to 8 July 2001, Discovery Geophysics Inc. carried out a large-loop transient electromagnetic survey on the Crazy Fox (Demers) Property of Cassidy Gold Corporation in central British Columbia. The survey was designed to follow-up and evaluate an area of interbedded rhyolites, andesites and argillites that was the focus of an earlier exploration program by Inmet Mining Corp. in 2000 (Barge, 2001). The results of a ground magnetic and VLF-EM survey over the Demers grid indicate a strong linear magnetic anomaly and multiple weak VLF-EM anomalies associated with the argillites and an andesite fragmental unit. Geochemical sampling by prospectors (Addie and Bourdon, 2000), which followed-up a regional geochemical survey in 1999 by the BC Geological Survey, has also outlined a multi-element geochemical anomaly on the Demers grid. The present survey was carried out to determine if any electromagnetic conductors are present in the sedimentary/volcanic package underlying the Demers grid, and if so, are they worthwhile drill targets for a sedimentary or volcanic hosted, polymetallic, massive sulphide deposit.

The survey was carried out using a 2000W Crone DEEPEM system. The survey crew consisted of Brent Robertson (chief geophysical operator of Discovery), along with one crew member to assist in the daily operations of the survey. A total of 6.95 km of large-loop transient EM was surveyed from 4 loop positions in a total of 6 days. The survey was carried out on the Demers grid, which was cut and chained the previous year by Inmet for the magnetic and VLF-EM surveys. Various lines were obstructed in places by new growth and windfall.

This report is a technical description of the surveys, data processing and interpretation procedures, along with a brief discussion of the results and their implications for the continuing exploration program on the property. The transient EM data are shown as individual 1:5,000 scale line-profile plots of both the vertical and horizontal components. The interpretation of the transient EM data is shown on a 1:5,000 scale survey grid map. The map is overlain on a digital topographic base showing hydrography and elevation contours.



SURVEY LOCATION, ACCESS AND PHYSIOGRAPHY

The Crazy Fox group of mineral claims are located in the Kamloops Mining Division, approximately 16 km north of Little Fort and 100 km north of Kamloops, B.C. (Figure 1). The area is easily accessed from Little Fort, where accommodation and services are available. From Little Fort, Hwy 24 is followed west towards Bridge Lake for 10 km to a main forestry access road that turns off to the north. The main forestry access road is followed for approximately 20 km to the property. It continues on to traverse much of the grid via secondary roads, including the extreme south and north ends as well as the entire east side and about a third of the west side. The main and secondary roads are passable in the summer months with a 2X4 vehicle, but 4x4 vehicles in the spring and fall would be recommended and snowmobiles in the winter would be useful.

The old grid lines had grown over in places and numerous survey pickets had fallen over. The baseline, bearing 340°, was cut very well and provides a good means of access to either end of the grid on foot. Old growth coniferous forest occupies much of the higher ground where logging has not yet intruded. Areas that have been logged in recent times and have not yet rejuvenated are relatively open but earlier logged areas are especially dense with young fir and alders. Swamps and several small ponds and streams occupy low-lying areas and much of the area is rangeland for local ranchers. Abundant exposed outcrop is found on the higher ridges and hills with little or no outcrop apparent in the low lying areas.

SURVEY METHODOLOGY

All electromagnetic (EM) techniques operate under the principle of electromagnetic induction. An EM field is created by passing a time-varying current through a coil or loop of wire (sometimes a long grounded wire is used). The "primary" EM field from the transmitter induces electric currents to flow in the earth, particularly in more conductive earth materials such as a massive sulphide ore body. These induced "eddy" currents, in turn, produce a "secondary" EM field which sums with the primary field in space and time. The resultant EM field is sensed by induction of currents in a receiver coil or loop of wire. The greater the conductivity or size of the conductive body in the earth, the greater will be the secondary EM field sensed by the receiver coil or loop.

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There are two different modes of operation of EM transmitters and receivers: frequency-domain, and time-domain or transient EM. In frequency-domain systems such as the MaxMin horizontal loop EM instrument, the transmitter currents vary by a regular, alternating waveform at a specific frequency or set of frequencies. The secondary response from the earth has the same waveform as the primary inducing field except for the difference in amplitude and an inherent phase shift between the secondary field and the primary field. Characteristics of the conductive earth can be derived from the amplitude and phase shift of the secondary field, particularly at different frequencies.

Time-domain EM systems employ a primary EM field which is discontinuous in time so that the secondary field is measured after the primary field terminates. A rapid termination of the primary field or an EM "transient" will cause induction in the conductive earth similar to a more regularly varying EM field. The advantage of this technique is that the secondary field is measured while the primary field is off. Hence, measurements can be made with greater sensitivity and variations due to the spatiality of the primary field (e.g. topographic effects) can be avoided. In a transient EM system, the amplitude of the secondary EM field decays with time after the primary field shuts off. The form and rate of decay of this secondary transient EM field can be used to deduce characteristics of the form, size and conductivity of the conductive body in the earth.

Transient EM systems can be operated in a wide variety of configurations of transmitter and receiver because of their inherent freedom from geometric restrictions. The most popular modes are "moving-loop" where a relatively small transmitter loop (usually less than 50 to 100 m across) is moved over the surface (or above the surface as with airborne surveys) and measurements are made with a receiver coil either within the loop or at some fixed distance from the Tx loop; and "fixed-loop" where a larger transmitter loop (usually greater than 100 m across) is laid out on the surface and measurements are made along profile lines (or down drill holes) outside or inside the Tx loop. In the large fixed-loop mode, measurements are normally made of both the vertical and the horizontal components of the secondary response.

SURVEY PROCEDURES

The transient EM survey was carried out using a 2000 Watt Crone DEEPEM transient EM system. Four transmitter loops measuring 200 m square to 500 m by 1000 m were laid out at various locations on the survey grid and lines were surveyed out from these loops in different directions. A total of 6.95 km of transient EM data were collected on 12 separate lines: some line sections being re-surveyed from two different transmitter loops (see Map 1 for loop and line locations).

The vertical and horizontal components of the secondary field were measured along each survey line at 25 and 50 metre intervals, using the convention of vertical component positive downwards and horizontal component positive away from the transmitter loop. Secondary fields were measured with the receiver on maximum gain, except where the response was greater than 1000 units, in which case the gain was decreased by one-half or one-quarter and the reading was then multiplied by the reciprocal factor. The primary field strength was also recorded at each station to allow the data to be primary field normalized. Time synchronization between the transmitter and receiver was obtained by UHF radio link.

The time derivative of the secondary EM response was sampled in eight windows on the transient decay curve. The eight channels range from 0.15 to 6.4 msec after primary field shut-off, and are equivalent to a spectrum of frequencies from approximately 6.7 kHz to 160 Hz. The 2000 Watt Crone DEEPEM transmitter delivered about 10 Amps of current into the transmitter loops. Additional detailed technical information on the Crone DEEPEM system can be found in the "INSTRUMENT SPECIFICATIONS" at the end of this report.

The survey was straightforward and was completed over 6 survey days. On 3 July, Loop 1 was setup and lines 8800N, 9000N, 9200N and 9400N were surveyed the following day. There was a slight delay in the morning due to repairs. On 5 July, Loop 2 was setup and lines 8400N, 8600N and 8800N were surveyed. The remaining lines (8200N and 9000N) were surveyed the following day and the loops were packed up. On 7 July, Loop 3 was setup at the extreme northern end of the grid and lines 11200N, 11400N and 11600N were surveyed. Loop 4 was setup on July 8 and lines 9400N, 9600N and 9800N were surveyed using this loop. Details of the survey coverage are listed in Table 1.

Tx Loop	Line	S	tatio	ns	Length (m)
Loop 1	8800N	4700E	to	5200E	500.0
	9000N	4700E	to	5200E	500.0
	9200N	4700E	to	5250E	500.0
	9400N	4700E	to	5200E	500.0
Loop 2	8200N	4600E	to	5100E	500.0
_	8400N	480 0E	to	5100E	300.0
	8600N	4800E	to	5300E	500.0
	8800N	4800E	to	5350E	550.0
	9000N	4650E	to	5150E	500.0
Loop 3	11200N	4700E	to	5100E	400.0
-	11400N	4900E	to	5200E	300.0
	11600N	4875 E	to	5200E	325.0
Loop 4	9400N	4800E	to	5400E	600.0
-	9600N	4800E	to	5125E	325.0
	9800N	4800E	to	5400E	600.0

TABLE 1: Transient EM Survey Coverage

6.95 km

DATA PROCESSING AND PRESENTATION

At the conclusion of each survey day, the DEEPEM data are keyed into a portable computer, and plotted as stacked profiles. The data are then edited for entry errors or other noise and re-plotted in final form as shown in Appendix A. The X and Z component data are shown on separate profile plots for each survey line at a scale of 1:5,000. Each component plot is arranged with the primary field strength across the top, the first four channels of secondary response combined on one amplitude axis in the centre, and the last four channels combined on a separate and expanded amplitude axis along the bottom. The amplitude axes are set to expand the data to maximum size, to a limit of 4 PEM units per cm. The data are plotted as recorded on constant 100% receiver gain. Interpretations are made directly from the individual line profile plots and then transferred onto an interpretation map which is included in Appendix B.

INTERPETATION PROCEDURES

The discussion of the DEEPEM survey results is primarily a qualitative analysis of the profile plots based on past experience and aided by scale model studies (Woods, 1975) and primary field vector plots (Macnae, 1980). Quantitative interpretations are made using nomograms from Woods, et al. (1980) and the results of these interpretations are usually transferred to an interpretation map. Numerical computer modelling (e.g. Dyck, et al., 1980; Gallagher, et al., 1985; West, et al., 1984) is also utilized to interpret the data, or to confirm interpretations. Threedimensional modelling routines (e.g. Walker and West, 1991), which allow the investigation of multiple conductors and the effects of conductive host rocks, are also useful in complex situations. Precise interpretations are often quite difficult due to complex combinations of the background half-space response - i.e. the "smoke ring" effect (Nabighian, 1979) - and multiple conductor responses. In addition, an anomalous response from a large fixed transmitter loop is commonly due to a combination of electromagnetic induction and ohmic current channelling, with the latter possibly dominating.

The position and depth of the conductors are determined from the shape of the anomalous response after visual removal of the background half-space response and separation of multiple anomalous responses on the same line. The top of a conductor is located directly below the horizontal component amplitude maximum and the vertical component inflection maximum. The depth to the top of the conductor is calculated from the peak-to-peak separation of the vertical component side lobes. The dip of the conductor is estimated from the asymmetry of the horizontal component profile and the relative sizes of the vertical component side lobes. The conductivitythickness product (i.e. conductance) is determined from the rate of decay of the anomalous response versus channel time, after correcting for the relative response gains on each channel (see "Instrument Specifications"). The size of the conductor and/or the size of the transmitter loop must also be factored into the conductance calculation (Woods, 1975; Woods, et al., 1980; Lamontagne, et al., 1980; Gallagher, et al., 1985).

Large background responses, closely spaced multiple conductors, and broad anomalies from deep conductors often make interpretations difficult and imprecise. Generally the deeper the conductive source, the lower will be its spatial resolution.

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DISCUSSION OF RESULTS

The geology and potential mineralization on the Demers property are discussed by Burge (2001). The area consists of a sequence of sedimentary and stratavolcanic units that strike about 340° (perpendicular to the survey grid lines) and dip about 50° to the west. The potential mineralized formation is an andesitic lapilli tuff with sulphide fragments. This 220 m thick formation is underlain by a 70 m thick argillite unit to the east, and is overlain by 270 m of argillite/wacke to the west. Basalts are found further to the east and andesite flows occur to the west.

The transient EM results are highly anomalous with very large amplitude secondary response on all lines surveyed and with all transmitter loops. The form of this anomalous response is varied depending on the coupling angle of the primary field with the dipping conductive formations. By re-surveying using transmitter loops located both to the east and to the west of the conductive formations it is possible to determine individual conductor axes and to quantify the electrical characteristics of the different conductors.

A strong conductor (40 to 50 mhos) appears to be coincident with the footwall argillite unit at about 5200E to 5300E from line 8800N to 9800N and at 5025E from line 11200N to 11600N. Another, slightly weaker, conductor (15 to 35 mhos) also appears to be coincident with the basal unit of the hanging-wall argillite/wacke along the 5000E baseline from line 8200N to 9800N and at 4800E on lines 11200N and 11400N. Additional conductors are also found within the main body of the hanging-wall argillite/wacke at few locations to the west of the long continuous conductor in the basal unit, however the distribution of these secondary conductors may be more related to survey coverage and transmitter loop locations.

An additional conductor has been resolved out of the strong argillite response within the andesite tuff unit at about 5100 E from line 9000N to 9800N and at 4900N from line 11200N to 11600N. The survey coverage is sufficient to determine the location of this interbedded conductor with some confidence, although the closely spaced conductors make it difficult to uniquely define its electrical characteristics. On line 9400N it appears to be highly conductive (i.e. >50 mhos) and on lines 11200N to 11600N its conductivity-thickness varies from 25 to 50 mhos. These lines are probably the optimal locations for follow-up drill testing.

CONCLUSION AND RECOMMENDATIONS

Close comparison of the transient EM conductors with the earlier magnetic survey results, reveal that both the footwall argillite and the basal unit of the hanging-wall argillite/wacke have coincident magnetic and conductive responses. This implies that these sedimentary units contain magnetite and/or pyrrhotite, as well as probably graphite to explain the high conductivity. The anomalies may, in fact, be caused by iron formations within the sedimentary sequence. The conductor within the prospective andesite tuff unit appears to be coincident with a magnetic low, and hence sulphides and/or graphite, with little or no contained magnetite and/or pyrrhotite, is probably the cause this conductor.

Further comparison of the magnetic survey results to the transient EM conductors suggests that the footwall argillite, the andesite tuff unit and the basal unit of the hanging-wall argillite/wacke may not be the cause the conductors on lines 11200N to 11600N. The central conductor is on a magnetic high and the eastern conductor is on a magnetic low. Hence, these three conductors may be caused by, from east to west: the andesite tuff unit, the basal unit of the hanging-wall argillite/wacke, and an additional conductor within the hanging-wall argillite/wacke similar to what is observed on lines 8600N to 9000N. Additional transient EM surveying using a transmitter loop located on the east side of the formations is required to resolve this ambiguity. Also, additional large-loop transient EM surveys are required between lines 9800N and 11200N to determine the continuity of the interpreted conductors and to make a more definitive assessment of which conductors are hosted within the prospective andesitic volcaniclastic formation.

Respectfully submitted,

Dennis V. Woods, Ph.D., P.Eng. Consulting Geophysicist

Discovery Geophysics Inc.

Cassidy Gold Corp.

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CERTIFICATE OF QUALIFICATIONS:

Dennis V. Woods

I, Dennis V. Woods of the municipality of Surrey, in the province of British Columbia, hereby certify as follows:

- I am a Consulting Geophysicist with an office at 14342 Greencrest Drive, Surrey, B.C., V4P 1M1
- I hold the following university degrees: Bachelor of Science, Applied Geology, Queen's University, 1973; Master of Science, Applied Geophysics, Queen's University, 1975; Doctor of Philosophy, Geophysics, Australian National University, 1979.
- 3. I am a registered professional engineer with The Association of Professional Engineers and Geoscientists of the Province of British Columbia (registration number 15,745), and of the Province of Newfoundland (registration number 03551).
- I am an active member of the Society of Exploration Geophysicist, the Canadian Society of Exploration Geophysicist and the Australian Society of Exploration Geophysicist.
- 5. I have practised my profession as a field geologist (1971-1975), a research geoscientist (1974-1986), and a geophysical consultant (1979 to the present).
- 6. I have no direct interest in Cassidy Gold Corp. or the above described properties and projects which are the subject of this report, nor do I intend to have any direct interest.

Dated at Surrey, in the Province of British Columbia, this 25th day of October, 2001.

Dennis V. Woods, Ph.D., P.Eng. Consulting Geophysicist

Statement of Qualifications

i, Christopher J. Wild, do hereby certify that:

- 1 I am a consulting geological engineer currently residing at 307 Lexington Road, Williams Lake, British Columbia.
- 2 I am a graduate of the University of British Columbia, Geological Engineering, Mineral Exploration Option (1984).
- 3 I have worked in mineral exploration and mine geology in Canada and Argentina on a full-time basis since 1985.
- 4 (am Registered Member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (1994), and am a member of the Canadian Institute of Mining and Metallurgy (CIM).
- 5 I helped supervise exploration documented in this report.
- 6 I hold the position of Vice-President Exploration with Cassidy Gold Corporation and hold incentive stock options in Cassidy Gold Corp.

Christopher J. Wild, P.Eng. Consulting Geological Engineer February 7, 2002



SPECIFICATIONS - CRONE PULSE EM EQUIPMENT

1. STANDARD RECEIVER

BATTERY SUPPLY:

±12 VDC, two internal, rechargeable, 12V get type batteries

MEASURED QUANTITIES:

Primary shut-off voltage pulse (PP). Time derivative of the transient magnetic field by integrative sampling over eight, contiguous time gates (microseconds).

CH. NO.	WINDOW	WIDTH	MID PT.	REL GAIN	WINDOW	WIDTH	MID PT.
PP	-100 to 0	100	-50	1.00	-200 to 0	200	-100
1	100 to 200	100	150	1.00	200 to 400	200	300
2	200 to 400	200	300	1.39	400 to 800	400	600
3	400 to 700	300	550	1.93	800 to 1400	600	1100
4	700 to 1100	400	900	2.68	1400 to 2200	800	1800
5	1100 to 1800	700	1450	3.73	2200 to 3600	1400	2900
6	1800 to 3000	1200	2400	5.18	3600 to 6000	2400	4800
7	3000 to 5000	2000	4000	7.20	6000 to 10K	4000	8000
8	5000 to 7800	2800	6400	10.00	10K to 15.6K	5600	12.8K
	10.8m	is. Time Basi	2		21.6m	s. Time Base	;

READOUT:

Readings are output on an analog meter (6V FSD), over three sensitivity ranges (X1, X10, X100). Data retrieval made by channel select switch,

TIMING:

A telemetry link ("sync.") is maintained by radio signal, or a back-up cable, between the transmitter and the receiver, and is meter monitored.

SENSITIVITY:

Adjustable through a ten turn, calibrated gain pot.

SAMPLING MODES:

"S & H" (Sample & Hold)

The receiver averages 512 (10.8 ms), or 256 (21.6 ms), readings for all channels, and stores the results for display. "CONT" (Continuous)

A running average for all channels is stored, enabling the operator to reject thunderstorm spikes and power line noise by visual inspection.

OPERATING TEMPERATURE RANGE:

-40°C - 50°C (-40°F - 122°F)

DIMENSIONS: 28 cm x 18 cm x 27 cm (11" x 7" x 10½")

SHIPPING DIMENSIONS: 37 cm x 27 cm x 35 cm SHIPPING WEIGHT: 14.5 kg (32 lb)

WEIGHT: 7 kg (16/b)

2. OPTIONAL DATALOGGER RECEIVER

- Uses above receiver in conjunction with Omnidata Polycorder.

- Data is A/D converted and stored in 32k memory.

- RS-232C serial interface allows for connection to modem.
- Continual monitoring of readings through LCD.
- Spheric and powerline rejection through software filter.
- Operating temp range from -40°C · 50°C (-40°F · 122°F)

WEIGHT: 14.5kg (32b)

DIMENSIONS: 22 cm x 28 cm x 46 cm (8%" x 11" x 18")

SHIPPING WEIGHT: 21.8kg (48lb)

SHIPPING DIMENSIONS: 35 cm x 30 cm x 53 cm (14" x 11%" x 21")

(14%" x 10%" x 14")

Specifications subject to change without notice.

SPECIFICATIONS - PULSE EM TRANSMITTER EQUIPMENT

MOTOR GENERATOR:

4-1/2 H.P. Wisconsin, 4 cycle engine with belt drive to D.C. alternator; maximum output 120V, 30 amps; external gas tank; frame unit weight: 33 kg, shipping: 47 kg.

REGULATOR:

Controls and filters the alternator output; continuously variable between 24V and 120V D.C.; 20 amp maximum current; weight: 10 kg, shipping: 24 kg.

PEM WAVEFORM TRANSMITTER:

Controls bipolar, on-off waveform and linear current shut-off ramp time. Radio and cable time synchronization with housing for optional crystal clock sync system; on-off times for 60 Hz areas 8.33ms, 16.66ms, 33.33ms; for 50 Hz areas 10.0ms, 20.0ms, 40ms; for analog PEM operation 10.9ms, 21.8ms; linear controlled current shut-off ramp times of 0.5, 1.0 and 1.5ms; monitors for shut-off ramp operation, instrument temperature, Tx loop continuity, and overload output current; automatic shut-down for open Tx loop. Weight: 12.5 kg, shipping: 22 kg.

REMOTE RADIO, ANTENNA AND MAST:

Used for radio timing synchronization on large survey grids; range up to 2 km; radio has 12V rechargeable gell cell battery supply; antenna is fiberglass mounted on a 4 section aluminum mast each 2m long. Radio weight: 2.7 kg, shipping: 6.0 kg; mast and antenna shipped as bundle: 6.4 kg.

OPTIONAL CRYSTAL CLOCK TIMING LINK:

Installed in the Digital Rx and external box mounted to be plugged into PEM-Tx. Gel rechargeable power supply. Weight: 10 kg, shipping: 15 kg.

WIRE, SPOOLS AND WINDERS:

Transmitter wire is usually No. 10 or No. 12 AWG copper in 310m or 410m lengths, 1 length per spool; 2 spools in a shipping box; winder is mounted on a magnesium packframe.

MULTI-TURN MOVING COIL:

7 turn, 13.7 meter diameter Tx loop with plugs to break into 2 sections. Aluminum or copper wire and various coverings depending on area being used.

BATTERY POWER SUPPLY:

24V, 20 amp hour; rechargeable battery supply for use with PEM-Tx as power source rather than motorgenerator-regulator. In aluminum case, with clamp connectors. Weight: 20.5 kg, shipping: 29 kg.

- Battery chargers supplied for all rechargeable battery units.
- All instruments and equipment operational from -40°C to +50°C.
- Shipping boxes are reusable plywood construction with closed cell foam shock protection.

APPENDIX A

Transient EM Profiles



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Appendix B 2001 Geophysical Program Expenditures

Discovery Int'l Geophysics

Mobilization & Demobilization	
July 3-8, 2001	
Report	

days @

6.0

\$ 1,000.00
\$ 9,000.00

\$ 1,000.00

Totals	\$ 11,000.00
GST not included	

\$ 1500.00 per day

