



42A03NE2005

2.19278

CLEAVER

010

**COMINCO LTD.**

**- ASSESSMENT REPORT -**

EXPLORATION

EASTERN CANADA

NTS: 42-A-3

GEOPHYSICAL REPORT

ON THE 1998

UTEM AND MAGNETIC SURVEYS

ON THE

CLEAVER TOWNSHIP PROJECT

SOUTH PORCUPINE, ONTARIO

2.19278

FEBRUARY 1998

R. D. Johnston



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## **I. SUMMARY**

During the period of January 26<sup>th</sup> to the 29<sup>th</sup>, a total of 8 line-kilometres of both UTEM time-domain EM and total field magnetics data were collected on one grid over the Cleaver township property, near Timmins Ontario. The UTEM survey was conducted using a single, fixed loop source, and only the vertical component of the electromagnetic field was measured.

The EM results from this grid show few conductive features over the area surrounding the showing. The limited EM responses over the showing, in conjunction with the weak conductive zone discovered previously with a HLEM survey, reveal the conductivity in this area to be shallow and of very limited depth extent. The conductivity present here generally does not possess the characteristics of an economic VMS mineral deposit. The magnetics data did not show anything that was different from previous surveys over this area.

## **II. INTRODUCTION**

The objective of the geophysics performed in this area was to identify possible deep, basement conductors associated with a surface Zn/Pd/Ag system that has a volcanogenic context and a 600 m strike length.

Previously, in 1988, Cominco had conducted HLEM and ground mag surveys over the showing area. These surveys had outlined a weak conductive axis across the lake (2-3 siemens @ 20-25 m depth) and a mag feature parallel to the showing, 25 m to the north-east (with a 1900 nT magnetic high and a 1300 nT contrast to the area north-west of the lake.) The single grid that was proposed for this study was drawn up by Mike Gunning and Mike Price and was designed to detect any deep extension to the near-surface HLEM conductor.

The linecutting, chaining and establishing of a snow-machine trail into the grid was done in advance of our geophysical survey by M.C. Exploration Services Inc. of Porcupine, Ont. A total of 17.8 line-kilometres of line cutting and chaining were done in preparation of the grid. The geophysical survey was conducted by Cominco in-house staff, consisting of Mike Price (geophysicist,) Rob Johnston (geophysicist,) Mike Gunning (geologist) and Brent McAllister (field technician.) The crew was based out of Cominco's Timmins house and travelled to the survey site by truck and snow-machine daily. Travel time to and from the site and the house was typically one hour, for a one-way leg of the journey. During the period of January 26<sup>th</sup> to the 29<sup>th</sup>, a total of 8 line-kilometres of both vertical component (Hz) UTEM and total field magnetics (TFMag) data was collected on this grid.

### **III. INSTRUMENTATION AND DATA PRESENTATION**

#### ***TOTAL FIELD MAGNETIC SURVEY***

Two GEM Systems GEM-19 magnetometers were used for the total-field magnetic (TFMag) survey; one as a base station recorder, and the second as a field recorder. All survey-line readings were taken using a staff mounted sensor (2.5m above ground level) at 12.5m stations, while base station readings were recorded every 30 seconds. The field data were transferred to a field computer and then were corrected using the diurnal drift correction calculated from the base station readings. This produced relative difference values (in nT) between the assumed background field values measured by the base station and the field values measured over the site in question. In this case, no reference field value (which is often quite arbitrarily selected) was added to the relative difference values calculated from the readings, so the plotted values will show simply the deviation of the magnetic readings over the site from the background values. The gridded results of the TFMag survey have been plotted on a 1: 5 000 scale map which is included as figure EC-98-3 at the end of this report.

#### ***UTEM SURVEY***

Lamontage Geophysics Ltd.'s UTEM III system was used for the EM portion of the survey. This system is a deep-penetrating, time-domain EM system whose design characteristics have been optimized for the detection of conductive bodies in mineral exploration environments. Also, the design of this system offers advantages over other EM systems in the detection of very conductive bodies in very resistive environments, thus making it the ideal system for detecting potential ore-bodies in this particular environment.

The field procedure consisted of laying out a large loop of single-strand insulated wire and creating a time-varying magnetic field in the area around the loop by forcing an electric current through the wire, using a transmitter unit powered by a motor generator. Survey lines, which were laid out to take advantage of the geometry of potential structures inferred from a geological model of the area, were then surveyed. This was done by measuring, with a coil of wound copper wire, the "step-response" of the local magnetic field (which includes loop's magnetic-field and any fields generated by any in-earth conductors present.) The fields from in-earth conductors are generated by the physical process of electromagnetic induction with the loop's source field, and are quite distinguishable from the system's response when no conductors are present.

In general, survey lines are oriented perpendicular to one side of the loop and surveying can be performed both inside and outside the loop. For this project, the transmitter-loop dimensions were 1200 m x 1000m, with the long side of the loop forming the starting point for the survey lines. Measurements were made on the survey lines at 50 m station intervals. The layout of the loop with respect to the survey lines is shown in plate EC-98-1. A flip-loop was planned for this survey area, and is shown on the layout map, but it

was never used for reasons to be discussed below. Only the north-eastern loop was used for this survey.

The transmitter loop is driven with a precise triangular current-waveform, which repeats itself at a carefully controlled frequency, which for this survey was 30.974 Hz. The UTEM receiver gathers and records 10 time-windows (“channels”) of information at each station. The earliest time channel, 10, is not normally plotted since it is usually too noisy to be of any use. The higher number channels (7 to 9) correspond to early time information (or high frequency, in an analogy to frequency-domain systems) while the lower number channels (1 to 3) correspond to late time information (or low frequency.) Therefore, poor conductors will respond on channels 9,8,7, and 6, while progressively better conductors will also give responses on lower numbered channels as well. In real field-surveys, conductive units often occur in slightly conductive host rocks and/or are overlain by conductive overburden. These environments will produce complex responses due to several conductive sources and thus will require interpretation to reveal the locations of the desired conductive bodies.

Simple physics dictates that the magnitude of the magnetic field generated by the transmitter-loop (the “primary field”) will fall off significantly with distance from the loop. Also, the UTEM system employs a transmitter that is continuously on during the surveying process and the effects of the primary field need to be mathematically removed from the measured signal for interpretation to occur. For this reason, “normalizing” schemes are used in presenting the data, which give us the best opportunity to identify anomalous conductivity-structure in the ground. The two normalization schemes used here are described below:

#### Continuous Normalized Plotting:

The calculation of the data value at each station in the profile is given by the formula:

$$\% \text{ Channel 'n' data value} = \frac{\text{Ch } n - P}{P} \times 100\%$$

where P is the primary field at each station in the profile and ‘Ch n’ is the measured amplitude for Channel n at the same station. This scheme preserves the relative anomaly-size of equal strength conductors, regardless of their distance away from the loop generating the source EM field. Normally, the strength of the *response* of a conductor also diminishes naturally with its distance from the loop.

#### Point Normalized Plotting:

The point normalizing formula is:

$$\% \text{ Channel' n' data value} = \frac{\text{Ch } n - P_{pn}}{P_{pn}} \times 100\%$$

where  $P_{pm}$  is the primary field at a chosen, "point norm station" and 'Ch  $n$ ' is the measured amplitude for Channel  $n$ . The aim of point normalizing data plots is to reduce the distortion to anomalies' shapes which is introduced by the continuous normalizing scheme, and thus allowing quantitative interpretation of anomalies based on physical arguments. *Note that in plotting, this style of normalization displays an arrow at the top of the section indicating the station whose value of the primary field is taken for  $P_{pm}$  in normalizing all the stations in the profile.*

The UTEM data sections are plotted in units of "percentage of the primary field" and using a linear scale. The collection of the data sections collected during this survey is presented in Appendix I. The inflection point of any Hz crossovers in point-normalized surface-data normally indicates the positions of conductors on a line. Alternatively, conductors will appear as peaks in plots of the Hx component of surface data. Again, weaker conductors are seen only on the early time-channels while the better conductors are seen on progressively later time-channels, with a characteristic signature appearing on later and later time channels as the strength of the conductor increases. The symbol, "X", is used to represent the interpreted position of conductors on the data plots, when one is present.

## VI. DISCUSSION OF THE DATA

The UTEM data from the set of lines completed during this survey show a definite lack of significant conductivity in this area. The largest response on the grid was a channel 5 crossover anomaly on line 1600E, from stations 4525N to 4550N, and indicates a very small and shallow down-dip extension to the surface mineralization. The anomaly shape is consistent with a small, plate like object with a low conductivity-thickness value and, from the data on lines 1500E and 1800E, its strike length must be less than 200m and probably much less than this. This information is in agreement with the 1988 HLEM survey, which indicated a weak conductor of shallow depth in roughly the same region.

From the examination of the point-normalized plots from lines 1000E, 1200E and 1400E there is some evidence to suspect that there might be a conductive body underneath the loop in its north-western corner. Given the geological information available, this inferred conductor would lie in a sedimentary unit and would most likely be associated with a graphite occurrence. Since there is no surface evidence for mineralization in this region and because this hypothetical conductor seems to be in a geological unit unlikely to support the desirable mineralization, it is deemed of little interest.


Of the eight lines of data collected during this survey, not one produced a response that would indicate a conductor of a size that would warrant further investigation. The results from the first loop were so lacking in conductive features, that it was decided to abandon the plans to perform the flip-loop segment of the survey, realizing that it would reveal little else about the site.

The TFMag data collected matches closely enough with the previous survey's results that we are certain that no positioning errors occurred in the cutting of the grid. A distinctive mag

feature appears immediately to the north-east of the showing, and matches the findings of the 1988 survey. The new TFMag data did not add anything new to our understanding of the magnetic characteristics of this area.

## V. CONCLUSIONS AND RECOMMENDATIONS

Based on the geophysical results of this survey, no further attention to this property is recommended.

  
\_\_\_\_\_  
Rob Johnston, Geophysicist  
Exploration, Eastern Canada

Distribution: E.C. Geophysics.....(1)  
E.C. Central .....(1)  
Government Assessment.....(2)



Figure EC-98-2  
 Cleaver Twp. Property Location Map  
 Scale 1: 50 000, NTS 42-A-3, UTM Zone 17U



## **APPENDIX I**

### **UTEM DATA PROFILES**

EC-98-4C	Line 1000E, continuous normalization
EC-98-4P	Line 1000E, point normalization
EC-98-5C	Line 1200E, continuous normalization
EC-98-5P	Line 1200E, point normalization
EC-98-6C	Line 1400E, continuous normalization
EC-98-6P	Line 1400E, point normalization
EC-98-7C	Line 1500E, continuous normalization
EC-98-7P	Line 1500E, point normalization
EC-98-8C	Line 1600E, continuous normalization
EC-98-8P	Line 1600E, point normalization
EC-98-9C	Line 1800E, continuous normalization
EC-98-9P	Line 1800E, point normalization
EC-98-10C	Line 2000E, continuous normalization
EC-98-10P	Line 2000E, point normalization
EC-98-11C	Line 2200E, continuous normalization
EC-98-11P	Line 2200E, point normalization

Figure EC-98-4C  
 Line 1000E UTEM Profile  
 Continuous Normalization

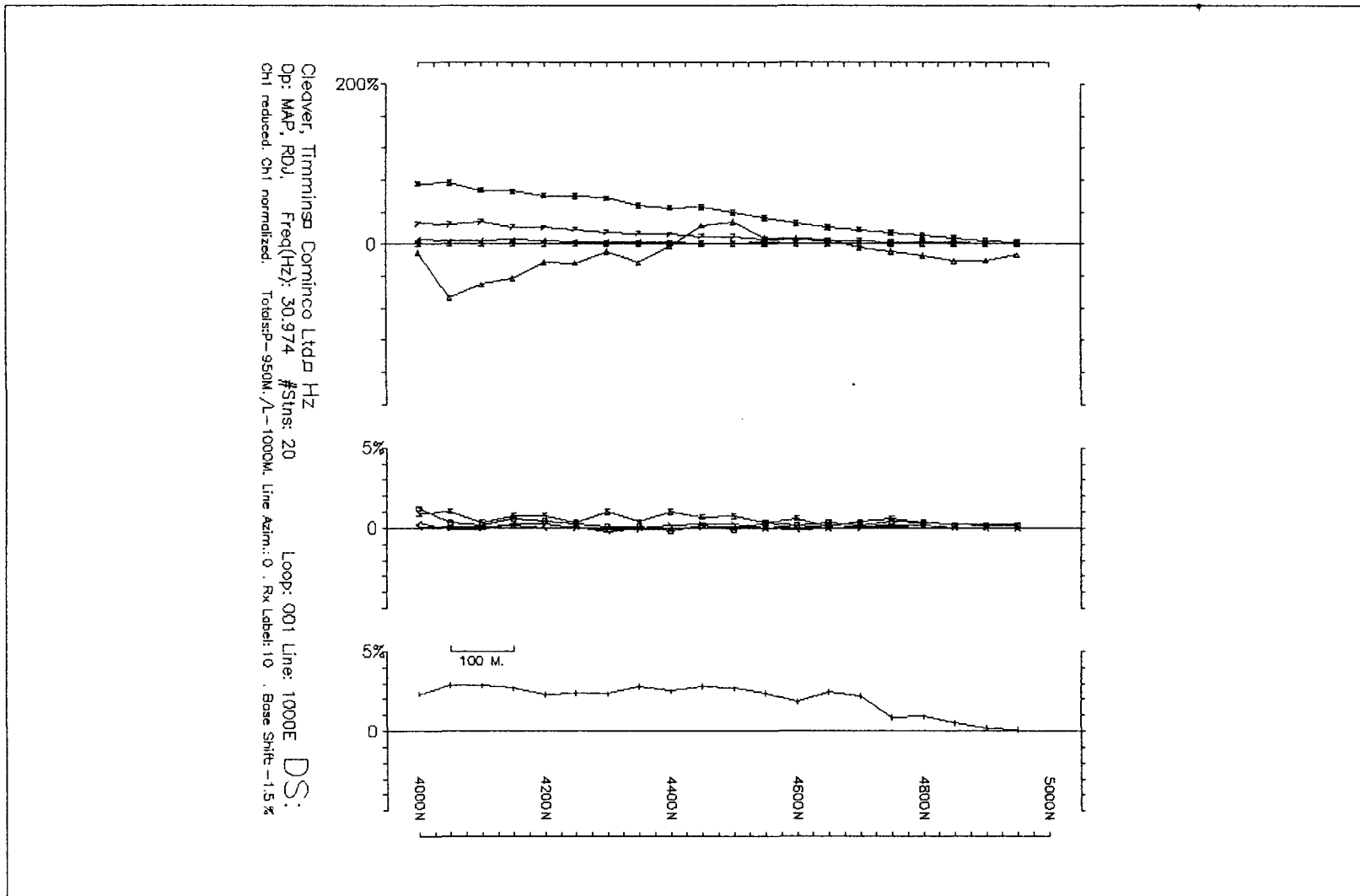


Figure EC-98-4P  
 Line 1000E UTEM Profile  
 Point Normalization

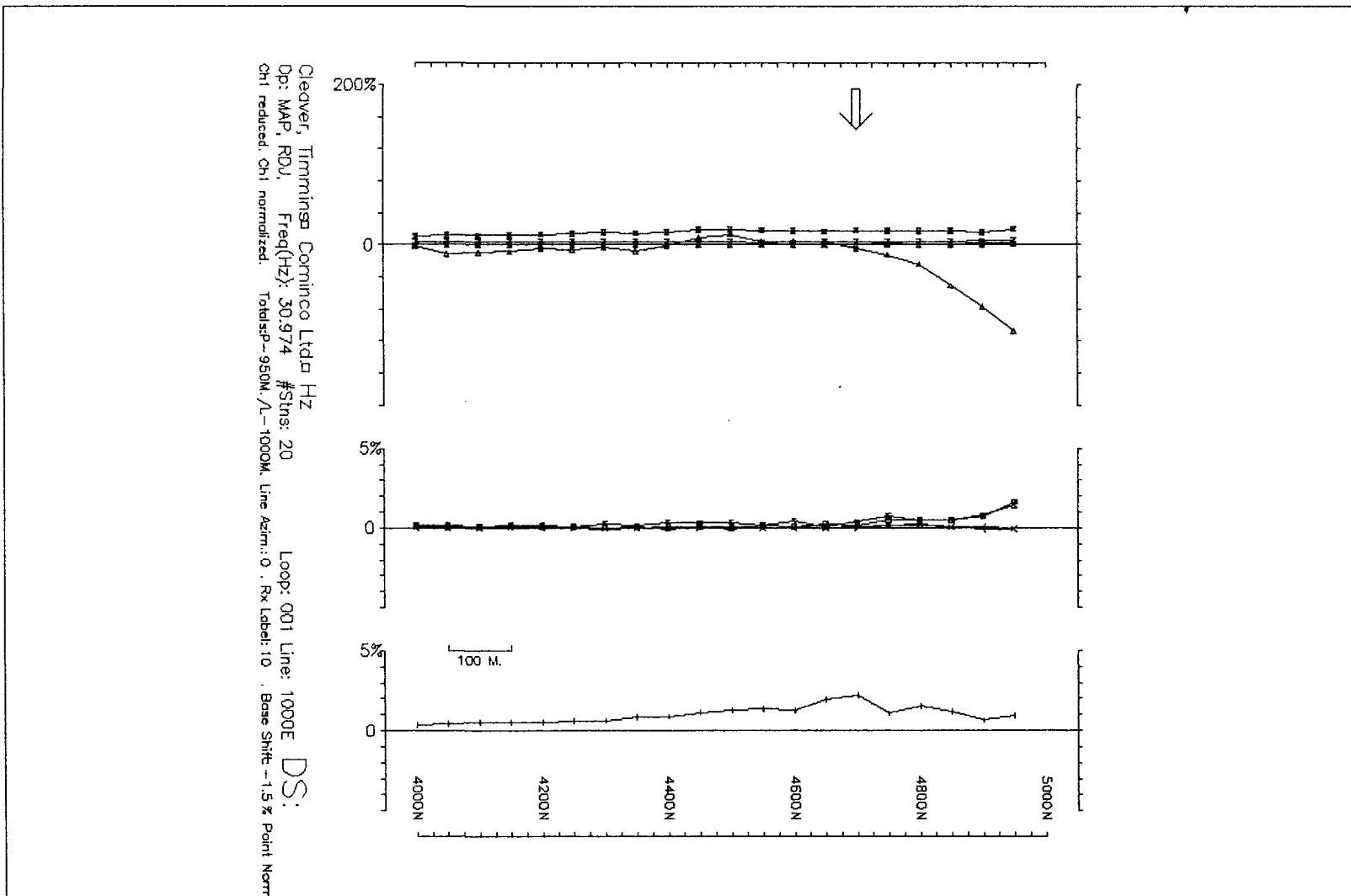


Figure EC-98-5C  
 Line 1200E UTEM Profile  
 Continuous Normalization

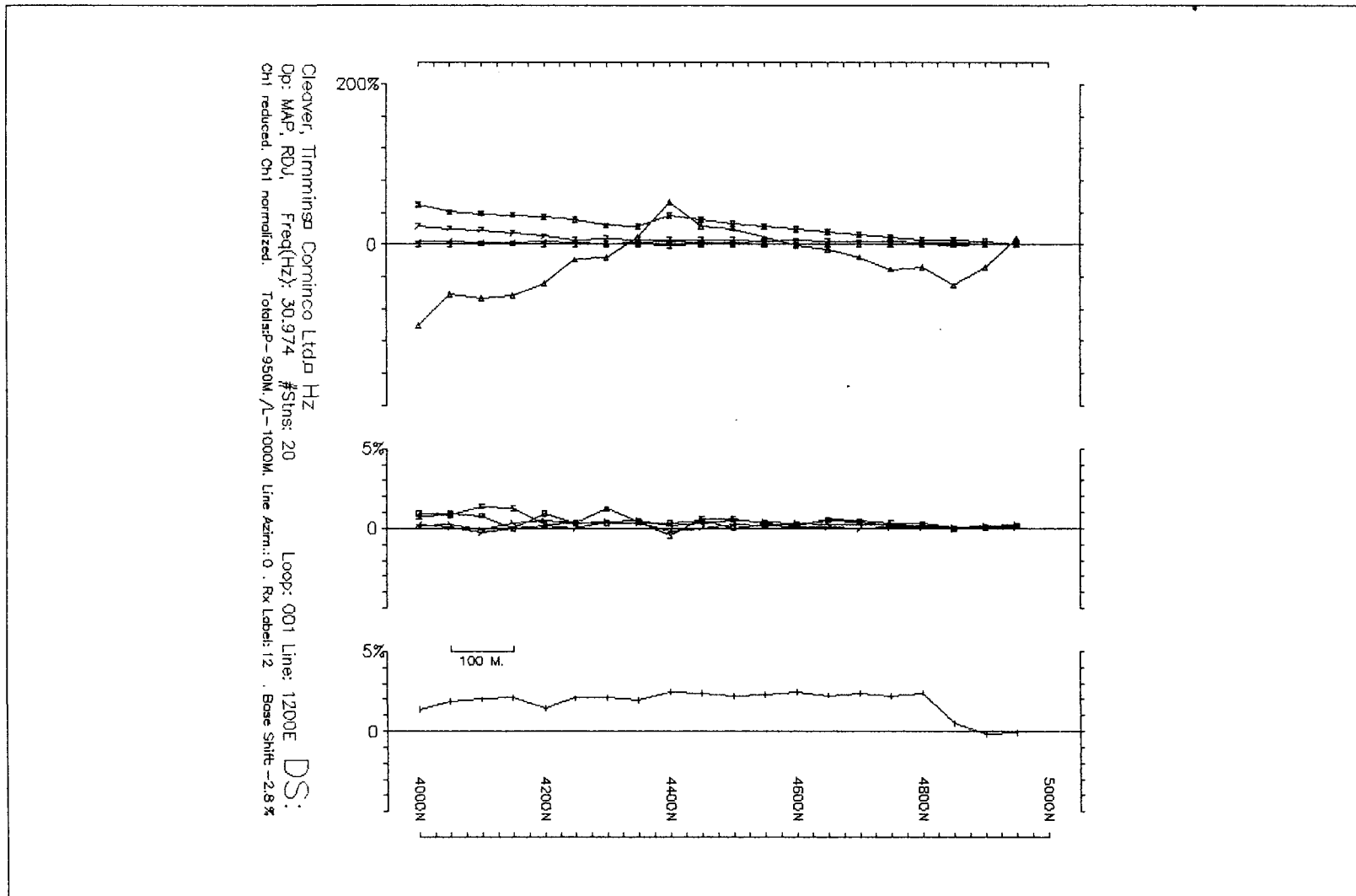


Figure EC-98-5P  
 Line 1200E UTEM Profile  
 Point Normalization

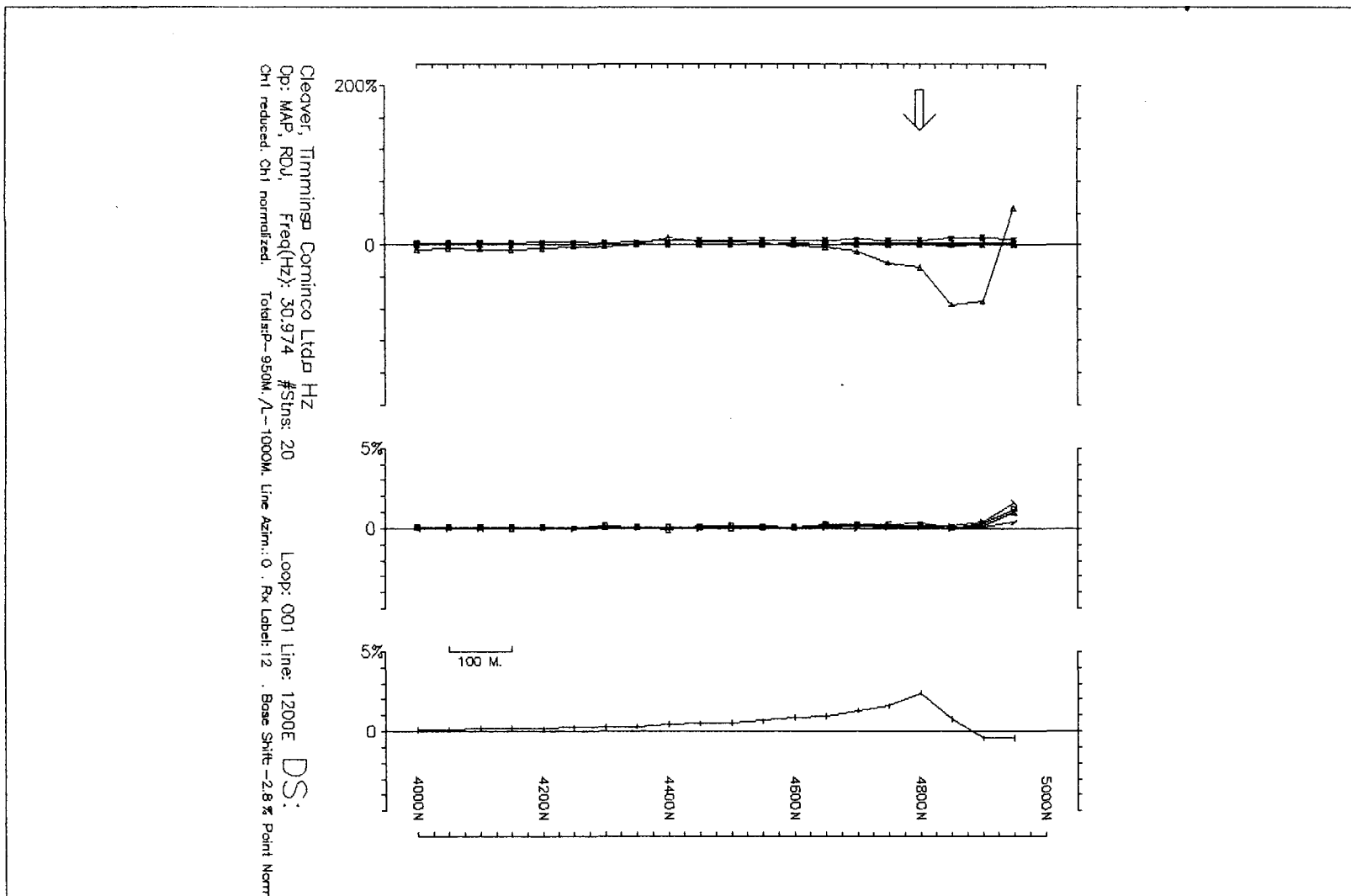


Figure EC-98-6C  
 Line 1400E UTEM Profile  
 Continuous Normalization

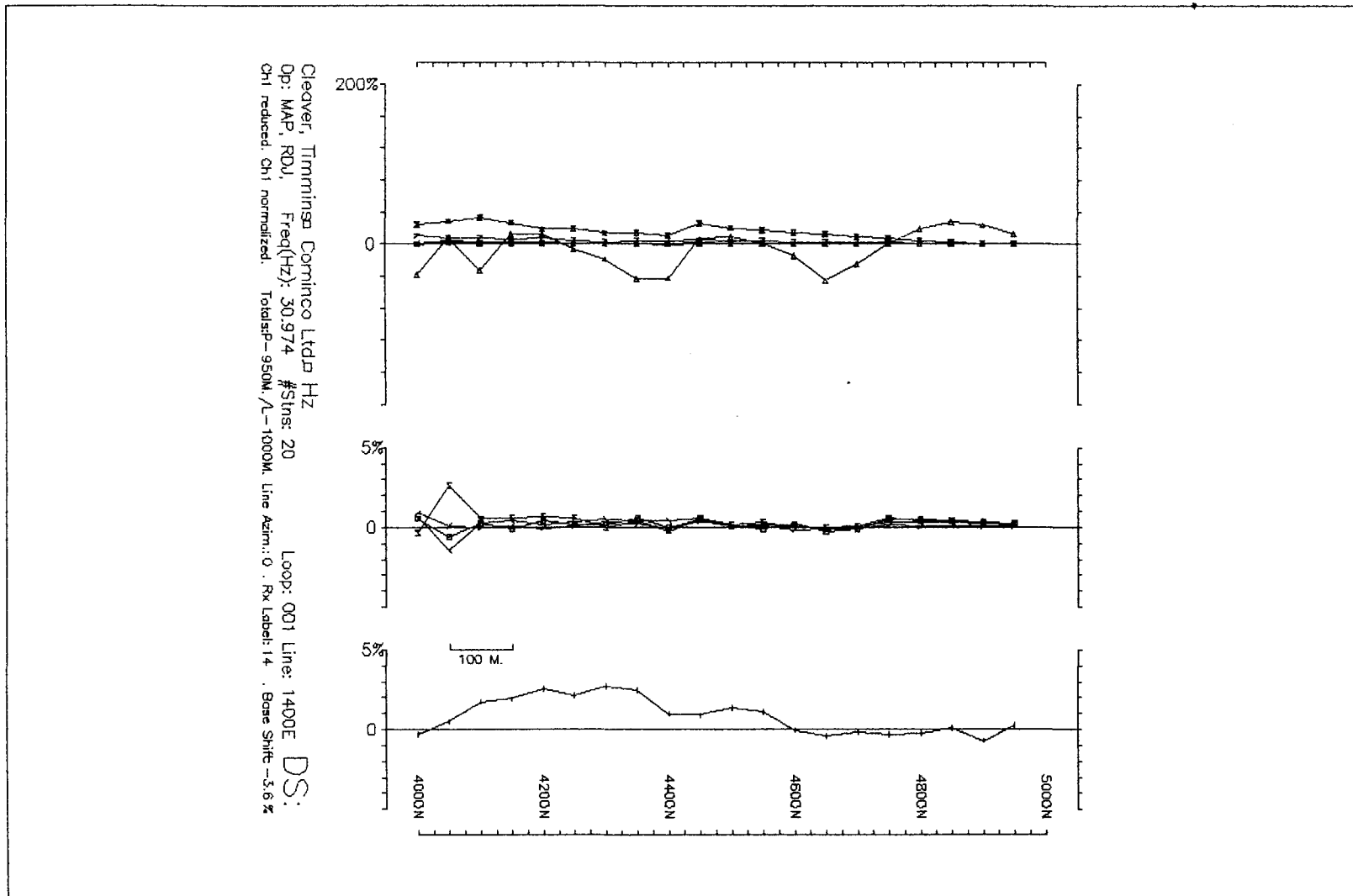


Figure EC-98-6P  
 Line 1400E UTEM Profile  
 Point Normalization

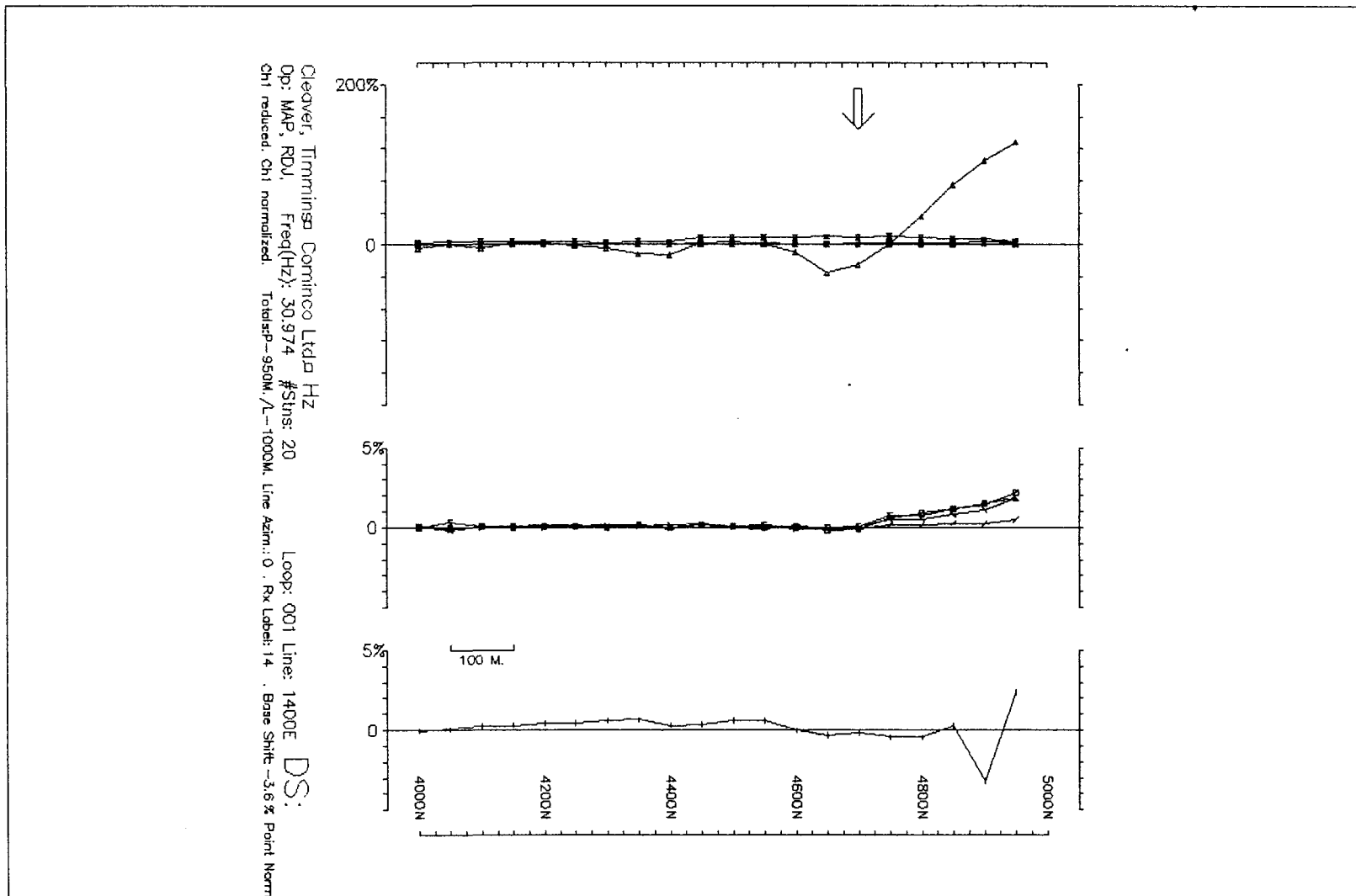


Figure EC-98-7C  
 Line 1500E UTEM Profile  
 Continuous Normalization

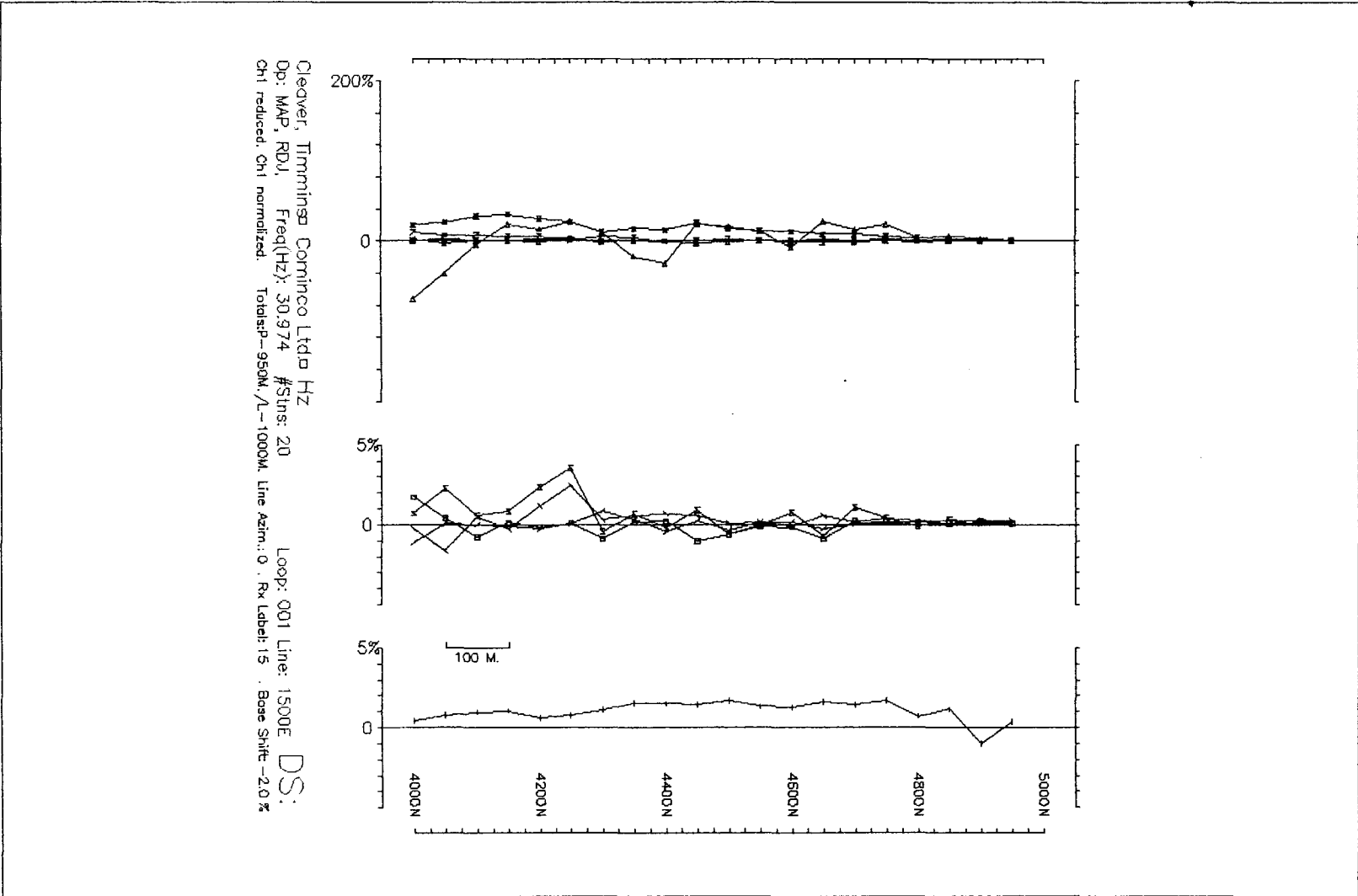




Figure EC-98-7P  
 Line 1500E UTEM Profile  
 Point Normalization

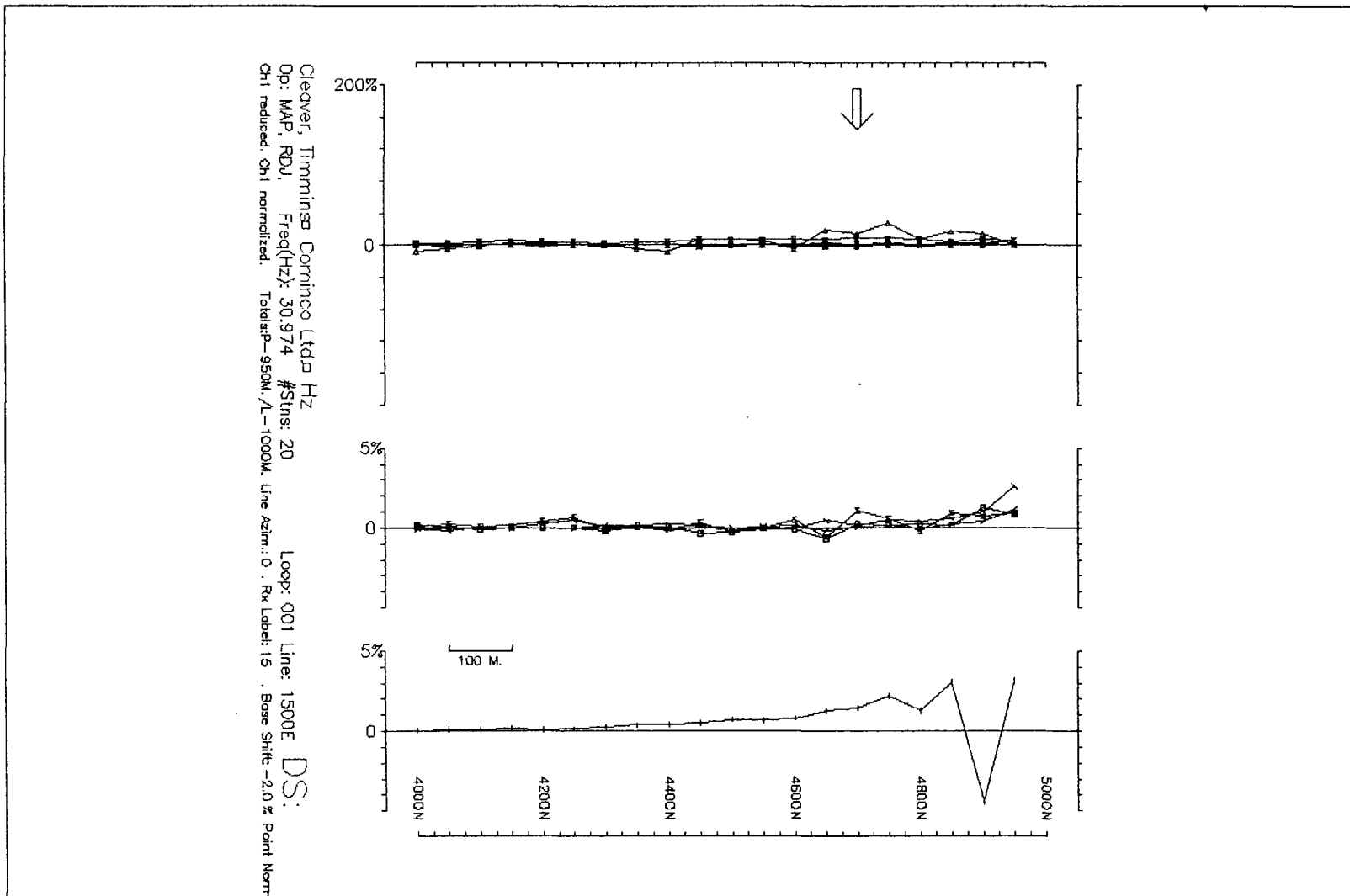


Figure EC-98-8C  
 Line 1600E UTEM Profile  
 Continuous Normalization

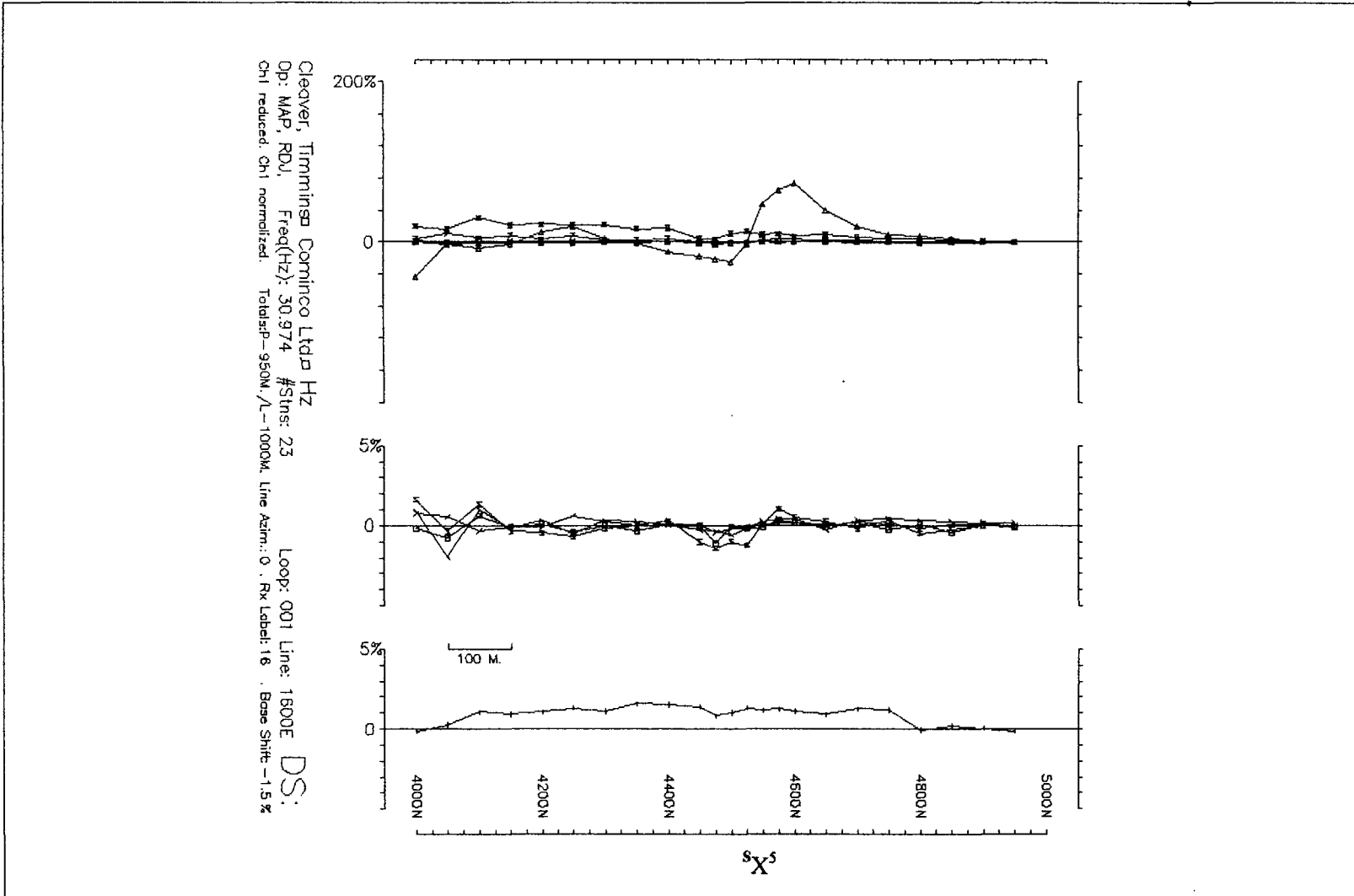


Figure EC-98-8P  
 Line 1600E UTEM Profile  
 Point Normalization

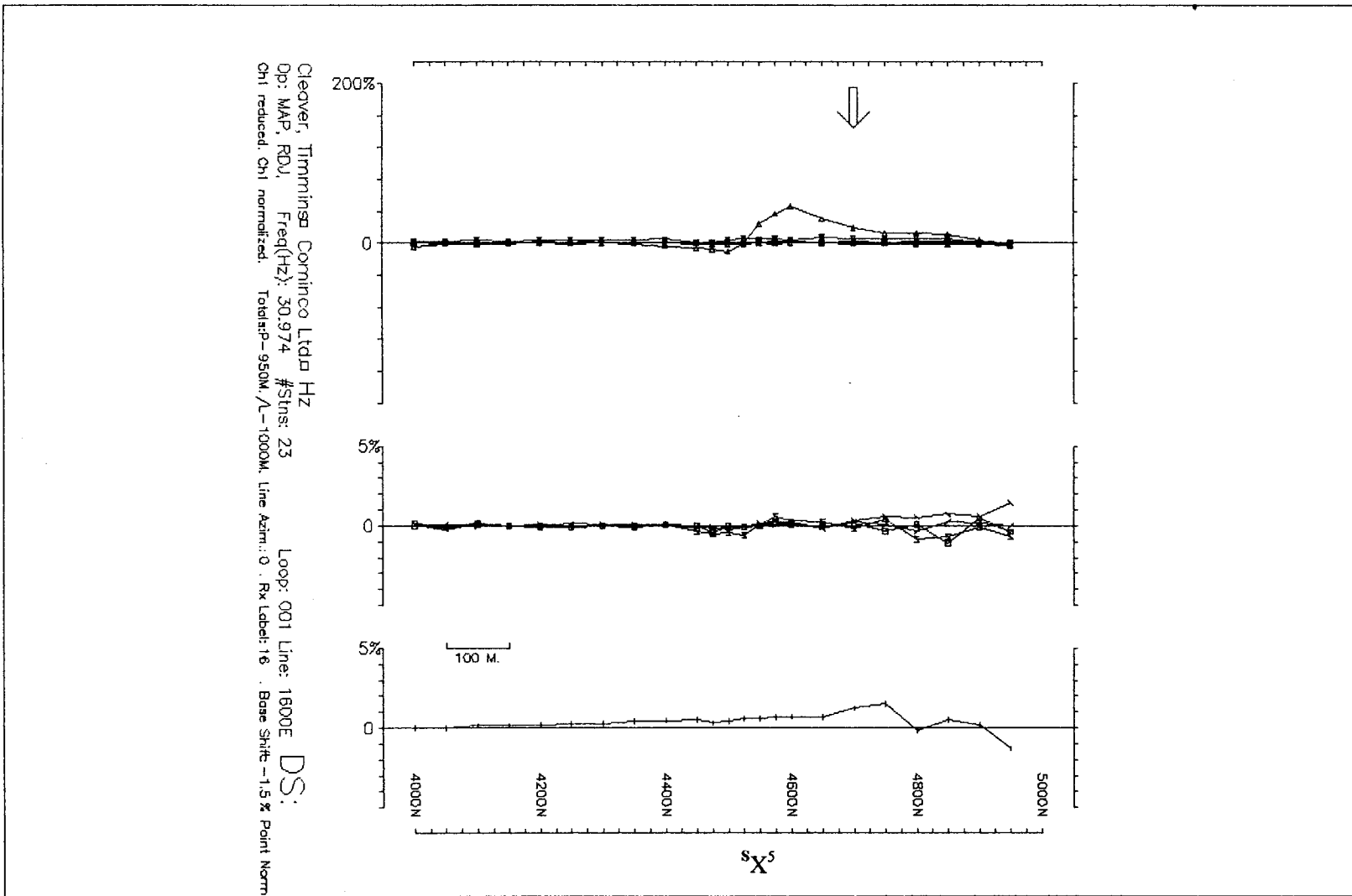


Figure EC-98-9C  
 Line 1800E UTEM Profile  
 Continuous Normalization

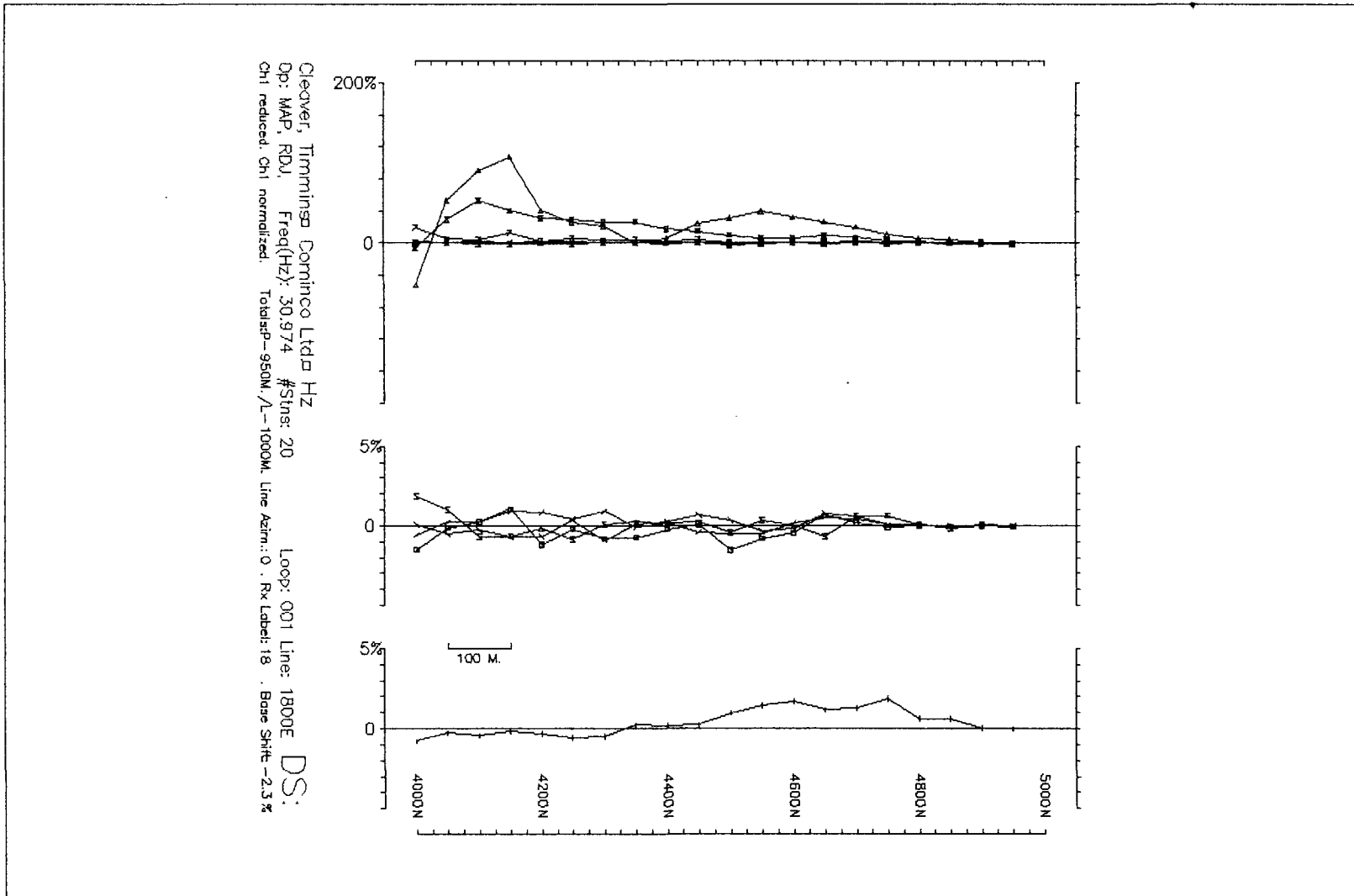


Figure EC-98-9P  
 Line 1800E UTEM Profile  
 Point Normalization

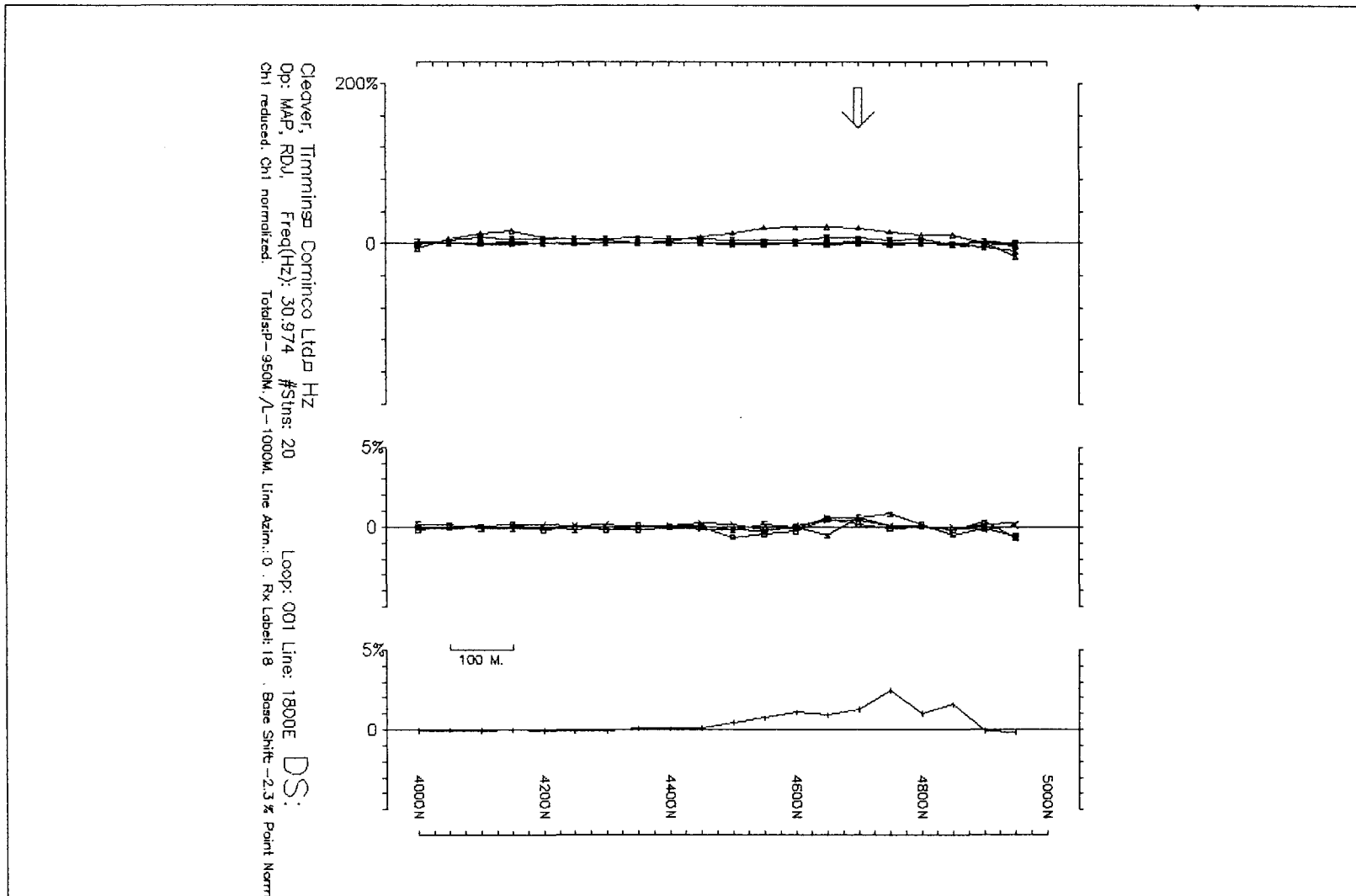


Figure EC-98-10C  
 Line 2000E UTEM Profile  
 Continuous Normalization

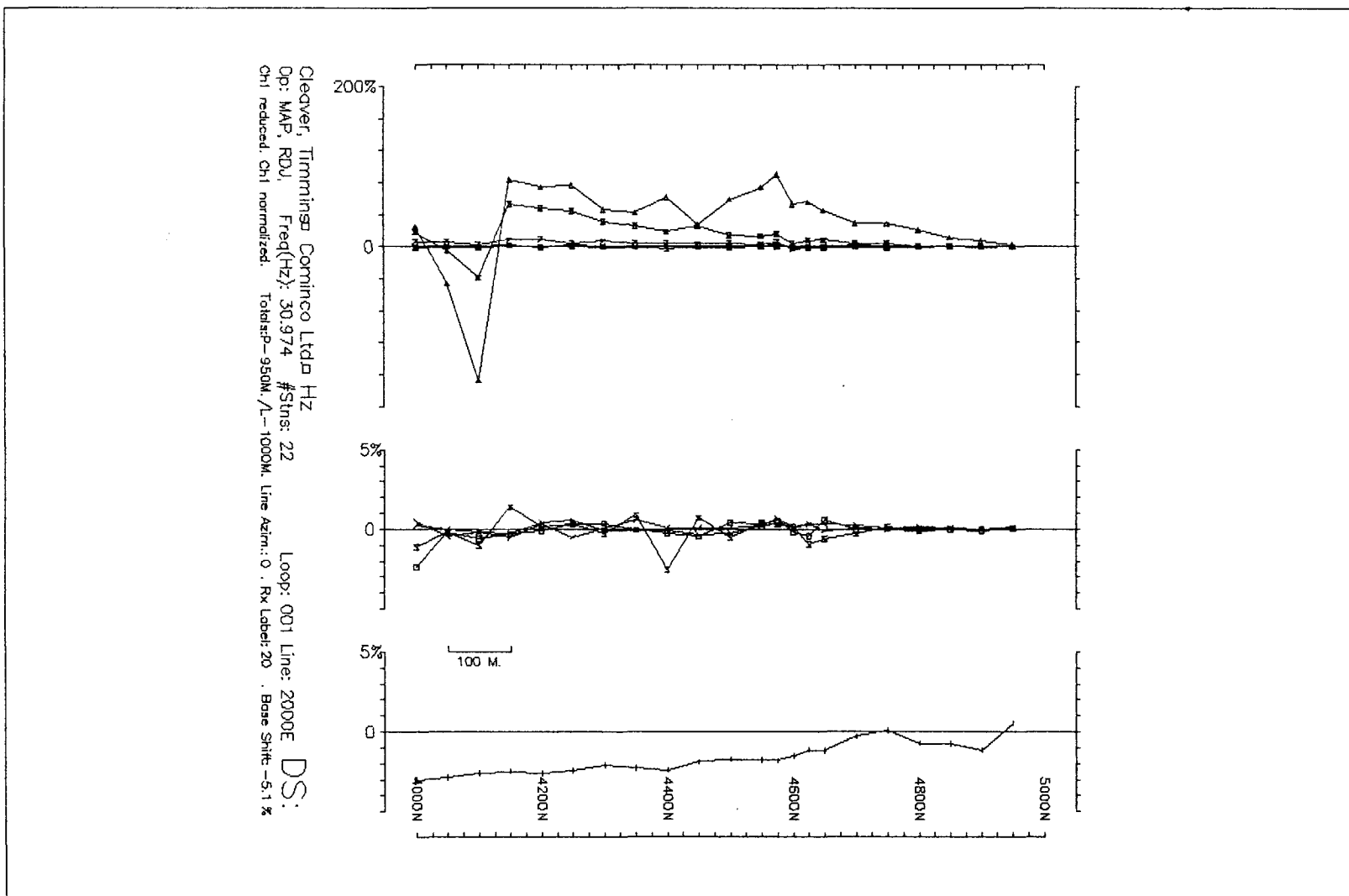


Figure EC-98-10P  
 Line 2000E UTEM Profile  
 Point Normalization

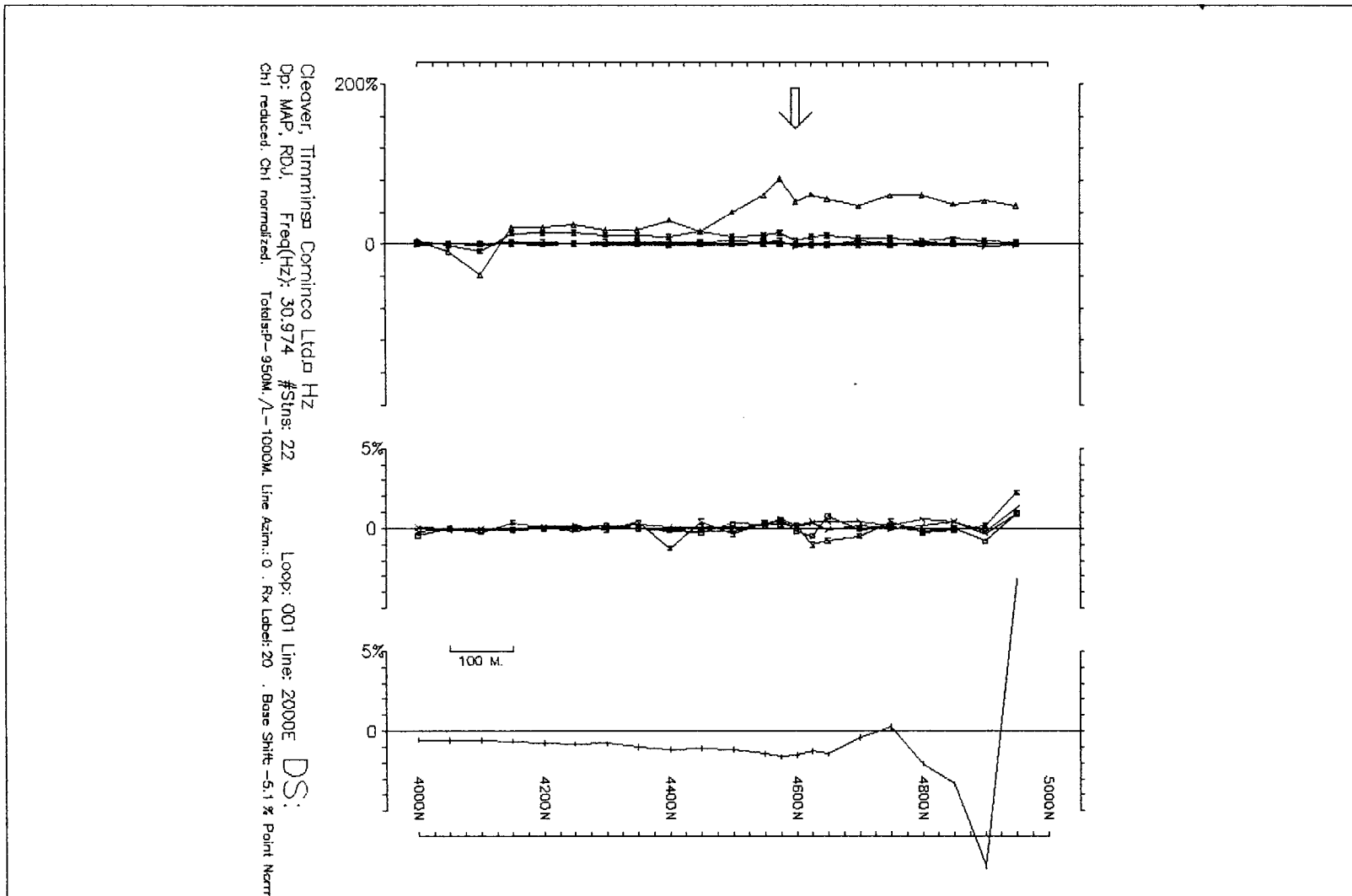


Figure EC-98-11C  
 Line 2200E UTEM Profile  
 Continuous Normalization

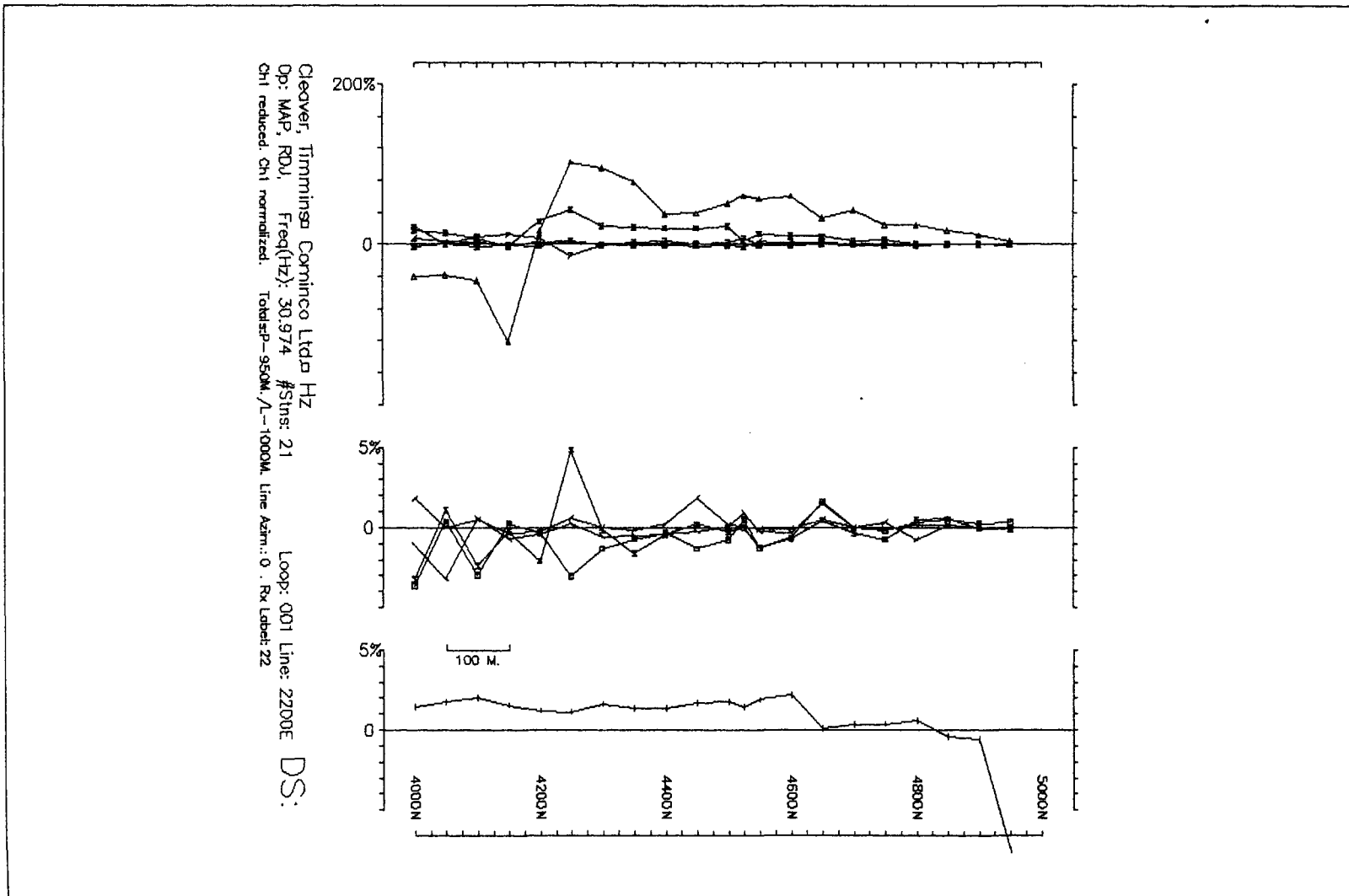
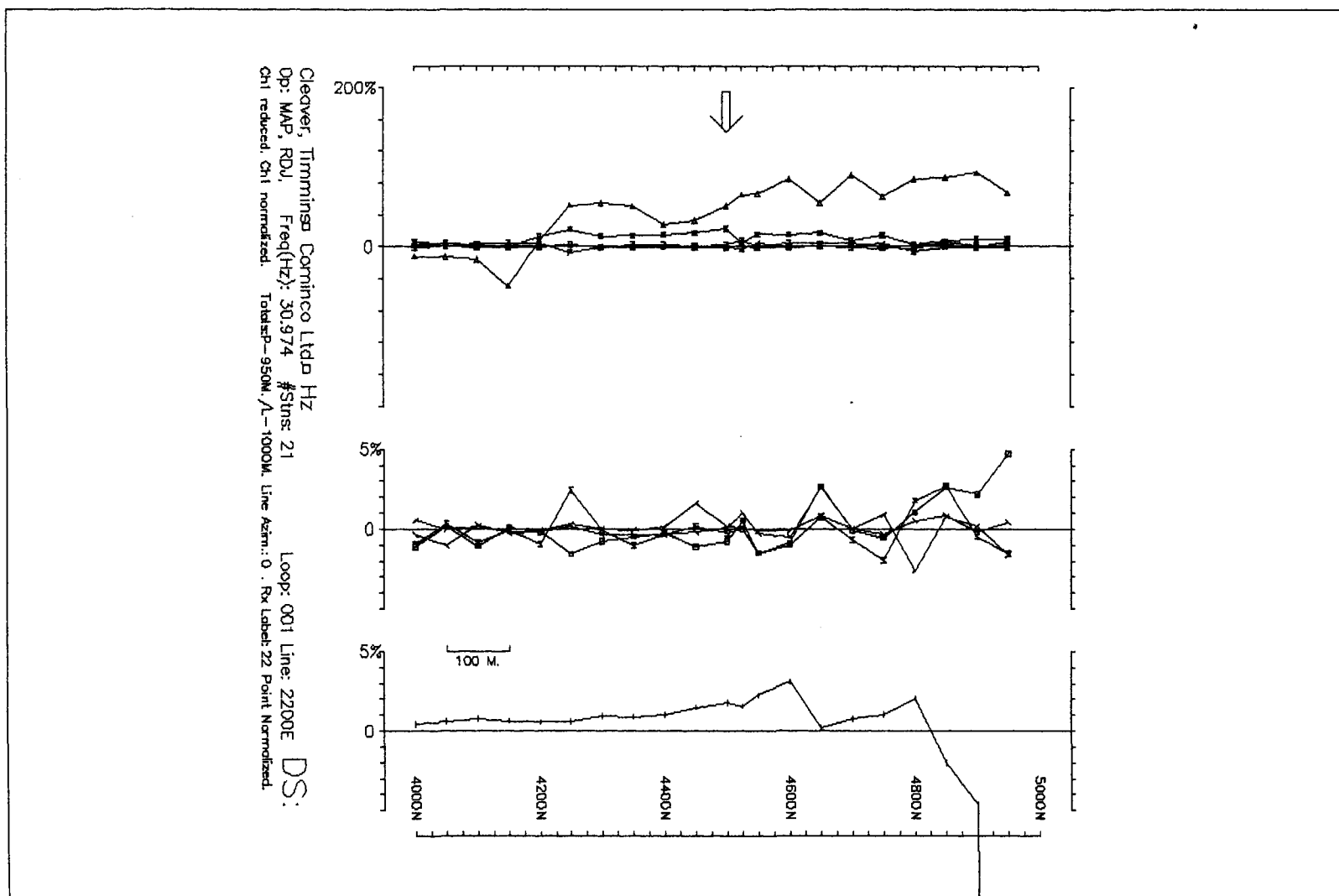




Figure EC-98-11P  
 Line 2200E UTEM Profile  
 Point Normalization





Ministry of  
Northern Development  
and Mines

# Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use)

W9980.00100

Assessment Files Research Imaging



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900

Sections 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, this work and correspond with the mining land holder. Questions about this collection and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Instructions: - For work performed on Crown Lands before recording a claim, use form 0240.  
- Please type or print in ink.

FEB 08 1999  
A.M. 10:15 To P.M.  
71819110111111213141516

1. Recorded holder(s) (Attach a list if necessary)

Name	WILLIAM FLINSKY	Client Number	C-132309
Address	129 HUOT ST. BOX 1056 PONIHO SOUTH PORCUPINE ONTARIO	Telephone Number	(705) 235-2208
		Fax Number	

Name		Client Number	
Address		Telephone Number	
		Fax Number	

RECEIVED  
FEB 09 1999  
GEOSCIENCE ASSESSMENT OFFICE

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

Geotechnical: prospecting, surveys, assays and work under section 18 (regs)       Physical: drilling stripping, trenching and associated assays       Rehabilitation

Work Type	GEO PHYSICAL SURVEY UTEM + MAGNETIC SURVEY CUT GRID LINES	Office Use	
Dates Work Performed	From 1998 Day 5 Month 12 Year 1998 To 27 Day 3 Month Year 1998	Commodity	
Global Positioning System Data (if available)	Township/Area CLEAVER TWP. M or G-Plan Number G-3619	Total \$ Value of Work Claimed	41,651
		NTS Reference	
		Mining Division	harder lake
		Resident Geologist District	Kirkland lake

Please remember to: - obtain a work permit from the Ministry of Natural Resources as required; ✓  
- provide proper notice to surface rights holders before starting work; ✓  
- complete and attach a Statement of Costs, form 0212; ✓  
- provide a map showing contiguous mining lands that are linked for assigning work; ✓  
- include two copies of your technical report. ✓

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name	COMINCO LTD. -120 ADELAIDE ST WEST	Telephone Number	(416) 943-6311
Address	SUITE 2200 TORONTO ONT. M5H 1T1	Fax Number	
Name		Telephone Number	
Address		Fax Number	
Name		Telephone Number	
Address		Fax Number	

RECEIVED  
HARDER LAKE  
MINING DIVISION  
FEB 4/99

4. Certification by Recorded Holder or Agent

I, WILLIAM FLINSKY (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent	<u>William Flinsky</u>	Date	FEB. 4 1999
Agent's Address	129 HUOT ST. SOUTH PORCUPINE	Telephone Number	(705) 235-2208
		Fax Number	

Deemed by 10/99.

5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

W9980.00100

Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date
eg TB 7827	16 ha	\$26,825	N/A	\$24,000	\$2,825
eg 1234567	12	0	\$24,000	0	0
eg 1234568	2	\$ 8,892	\$ 4,000	0	\$4,892
1 1229000	8	9.600			9.600
2 1204131	6	4.800			4.800
3 1180173	6	9.600			9.600
4 1219015	2	1.600			1.600
5 1129846	1	1.651			1.651
6 1129847	6	4.800			4.800
7 1133231	1	1.600			1.600
8 1133232	1	1.600			1.600
9 1169022	1	1.600			1.600
10 1169024	1	1.600			1.600
11 1129879	4	3.200			3.200
12					
13					
14					
15					
Column Totals		41,651.00			41,651.00

I, WILLIAM FLINSKY, do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

(Print Full Name)

Signature of Recorded Holder or Agent Authorized in Writing  
*William Flinsky*

Date FEB. 4 1999

6. Instructions for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- 3. Credits are to be cut back equally over all claims listed in this declaration; or
- 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

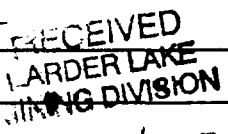
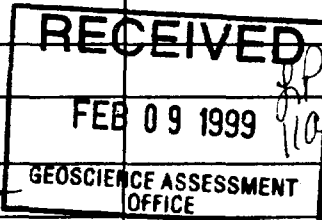
Received Stamp RECEIVED LARDER LAKE MINING DIVISION FEB 4/99 2:12 PM	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved
	Approved for Recording by Mining Recorder (Signature)	

0241 (03/97)

**RECEIVED**  
 FEB 09 1999  
 GEOSCIENCE ASSESSMENT  
 OFFICE

Personal information collected on this form is obtained under the authority of subsection 6 (1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, this information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to a Provincial Mining Recorder, Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
GEOPHYSICAL			
UTEM & TOTAL			
FIELD MAGNETIC SURVEYS	SALARY 51 DAYS 8 HR DAY		11,128. <sup>00</sup>
CUT GRID LINES	CUT 17.8 KM GRID LINES		4,480. <sup>00</sup>
<b>Associated Costs (e.g. supplies, mobilization and demobilization).</b>			
ADMINISTRATION COST			1,014. <sup>00</sup>
OPTION PYMT			20,000. <sup>00</sup>
DRAFTING EXPENSE			112. <sup>00</sup>
CAN. TIRE EXPENSES			103.93
<b>Transportation Costs</b>			
AIR FARE, FREIGHT, & COURIER COST			1,478.79
SNOW MACHINES, FUEL			353.53
<b>Food and Lodging Costs</b>			
MEALS & LODGING EXPENSE			612.86
<b>Total Value of Assessment Work</b>			41,651. <sup>00</sup>



FEB. 4/99  
2:12 PM

**Calculations of Filing Discounts:**

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK x 0.50 = Total \$ value of worked claimed.

**Note:**

- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

**Certification verifying costs:**

I, WILLIAM FLINSKY, do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying

Declaration of Work form as William Flinsky I am authorized to make this certification.  
(recorded holder, agent, or state company position with signing authority)

Signature <u>William Flinsky</u>	Date FEB. 4 1999
-------------------------------------	---------------------

Geoscience Assessment Office  
933 Ramsey Lake Road  
6th Floor  
Sudbury, Ontario  
P3E 6B5

Telephone: (888) 415-9846  
Fax: (877) 670-1555

June 22, 1999

WILLIAM A FLINSKY  
129 HUOT STREET  
BOX 1056  
SOUTH PORCUPINE, Ontario  
P0N-1H0

Visit our website at:  
[www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm](http://www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm)

Dear Sir or Madam:

**Submission Number:** 2.19278

**Status**

**Subject: Transaction Number(s):** W9980.00100 Approval After Notice

---

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact Bruce Gates by e-mail at [bruce.gates@ndm.gov.on.ca](mailto:bruce.gates@ndm.gov.on.ca) or by telephone at (705) 670-5856.

Yours sincerely,



ORIGINAL SIGNED BY  
Blair Kite  
Supervisor, Geoscience Assessment Office  
Mining Lands Section

# Work Report Assessment Results

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**Submission Number:** 2.19278

**Date Correspondence Sent:** June 22, 1999

**Assessor:** Bruce Gates

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<b>Transaction Number</b>	<b>First Claim Number</b>	<b>Township(s) / Area(s)</b>	<b>Status</b>	<b>Approval Date</b>
W9980.00100	1229000	CLEAVER	Approval After Notice	June 20, 1999

**Section:**

14 Geophysical MAG

14 Geophysical EM

The revisions outlined in the Notice dated May 6, 1999, have been corrected.

Assessment work credit has been approved as outlined on the attached Distribution of Assessment Work Credit sheet.

**Correspondence to:**

Resident Geologist

Kirkland Lake, ON

**Recorded Holder(s) and/or Agent(s):**

WILLIAM A FLINSKY

SOUTH PORCUPINE, Ontario

Assessment Files Library

Sudbury, ON

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# Distribution of Assessment Work Credit

The following credit distribution reflects the value of assessment work performed on the mining land(s).

**Date:** June 22, 1999

**Submission Number:** 2.19278

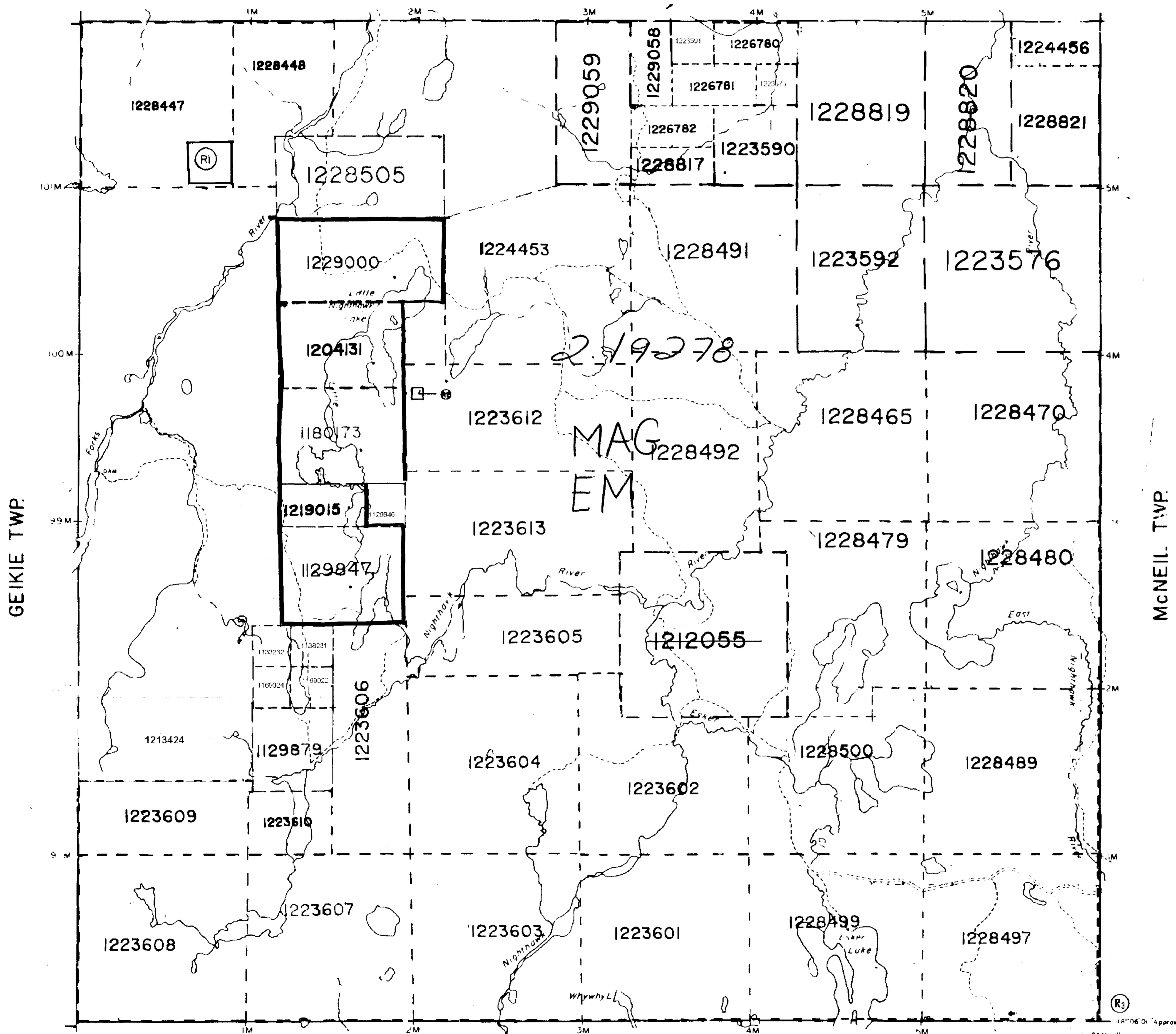
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**Transaction Number:** W9980.00100

<u>Claim Number</u>	<u>Value Of Work Performed</u>
1229000	990.00
1204131	2,975.00
1180173	13,887.00
1219015	990.00
1129846	0.00
1129847	990.00
1133231	0.00
1133232	0.00
1169022	0.00
1169024	0.00
1129879	0.00
<b>Total: \$</b>	<b>19,832.00</b>

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FALLON TWP.



NOTES

400 surface rights reservation along the shores of all lakes and rivers.

DESCRIPTION	ORDER NO.	DATE	DISPOSITION	FILE
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NORTH EAST CORNER REDRAFTED OCT 28, 1988

**AREAS WITHDRAWN FROM DISPOSITION**

J.R.O. - MINING RIGHTS ONLY  
 S.R.O. - SURFACE RIGHTS ONLY  
 M+S - MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
R-1	SEC. 35 W-L-20/94 NER	S & M 94/03/24		
R-2	SEC 35 W-L-101/94 NER	S & M 94/10/06		
Ⓢ	SEC. 35 W-LL-C1596199	ONT MAY 16/99	M+S	

**NOTICE OF FORESTRY ACTIVITY**

THIS TOWNSHIP / AREA FALLS WITHIN THE \_\_\_\_\_ ONTARIO PAPER FOREST MANAGEMENT AGREEMENT AND MAY BE SUBJECT TO FORESTRY OPERATIONS. THE MNR UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT: 896 RIVERSIDE DR. TIMMINS, ONT. P4N 3W2 705-267-7951

LEGEND

- PATENTED LAND
  - ASSIGNMENT FOR SURFACE RIGHTS ONLY
  - LEASE
  - LICENSE OF OCCUPATION
  - CROWN LAND SALES
  - LOCATED LAND
  - CANCELLED
  - MINING RIGHTS ONLY
  - SURFACE RIGHTS ONLY
  - HIGHWAY & ROUTE NO.
  - ROADS
  - TRAILS
  - RAILWAYS
  - POWER LINES
  - MUSKOKEE OR MUSKOC
  - M.I.F.S.
- \*used only with summer resort locations or when space is limited

TOWNSHIP OF

CLEAVER

DISTRICT OF TIMISKAMING

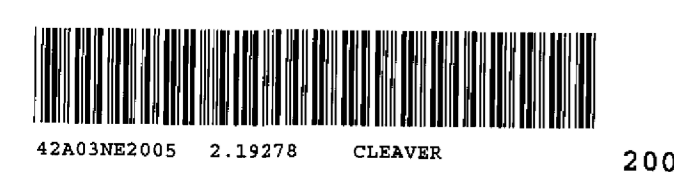
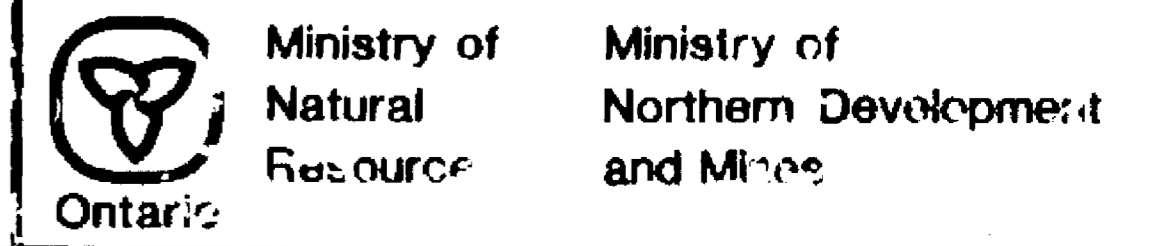
LARDER LAKE MINING DIVISION

SCALE: 1 INCH = 40 CHAINS (1/2 MILE)

DR \_\_\_\_\_ DATE JULY 1986 PLAN NO. G-3619

COPY OF THIS MYLAR ARCHIVED FEB. 05/93 ARCHIVED JANUARY 26, 1995 ARCHIVED FEB 24/97

PLAN UP DATED OCT 27/89

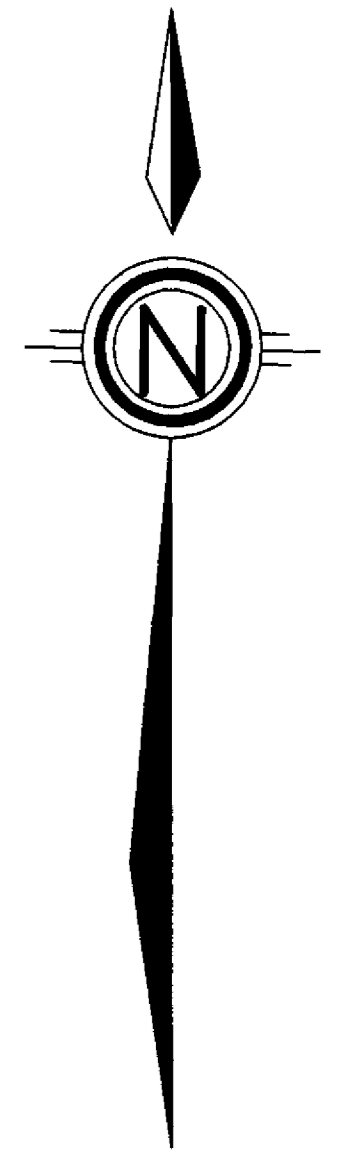




BASE LINES: 40+00N  
50+00N

LOOP LINES: 30+00N  
60+00N  
10+00E (between 30+00N & 40+00N)  
10+00E (between 50+00N & 60+00N)  
22+00E (between 30+00N & 40+00N)  
22+00E (between 50+00N & 60+00N)

GRID LINES: 10+00E (between 40+00N & 50+00N)  
12+00E (between 40+00N & 50+00N)  
14+00E (between 40+00N & 50+00N)  
15+00E (between 40+00N & 50+00N)  
16+00E (between 40+00N & 50+00N)  
18+00E (between 40+00N & 50+00N)  
20+00E (between 40+00N & 50+00N)  
22+00E (between 40+00N & 50+00N)



1229000

1204131

LITTLE Nighthawk LAKE

1180173

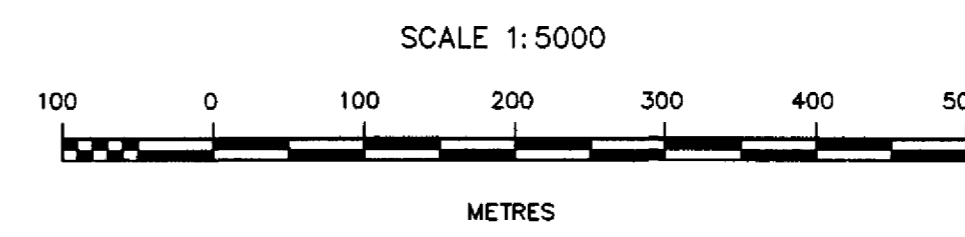
GROUND REFERENCE:  
130m @ 135 from SE tip of lake  
to L 22+00E/50+00N grid corner

LINE BEARING = N045E

1219015

1129846

1129847

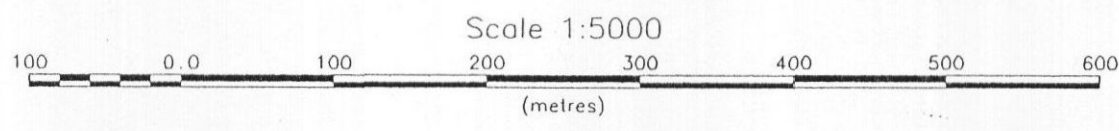
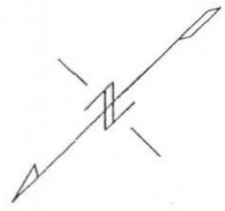


Drawn By: M.H.G.	Traced By: L.S.		
Revised By	Date	Revised By	Date

CLEAVER PROPERTY  
1998 GRID & CLAIM MAP

SCALE: 1:5000 DATE: November 28, 1997 PLATE:





**Legend**  
 Profile scale: 100nT/mm  
 No base level added to corrected data

<b>CLEAVER TWP. PROPERTY</b>				Cominco NTS 42-A-3	
South Porcupine, Ontario				1998 Ground Magnetics Postings Local Grid Coordinates	
1998 Ground Magnetics Postings Local Grid Coordinates					
Drawn by: RDJ	Traced by:		Scale: 1:5000	Date: Feb., 1998	Plate:
Revised by:	Date:	Revised by:	Date:		

