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ASSESSMENT REPORT: EBY WEST & OTTO TP PROPERTIES

Douglas Robinson

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A. INTRODUCTION

This program was funded by OPAP grants OP95-289 and OPG 96-227. Line-cutting, geological mapping, a magnetometer survey, a MaxMin EM survey and preparation of this technical report were performed on the Eby West property in Eby Tp. and the Amikougami Creek property in Otto Tp. Douglas Robinson, the author of this report, and David Robinson supervised the field work which was between May 4, 1995 and February 24, 1997.

The geophysics and geological mapping were conducted to define target areas for advanced gold exploration on both properties. EM conductors identified on the Eby West property represent potential structures that could host gold deposits. Several EM conductors associated with felsic volcanics of the Amikougami Creek property represents both potential volcanogenic base metal targets and gold targets.

B. PROJECT LOCATION (Figure 1)

Eby West Property

This property consists of 22 claims totalling 36 claim units in lots 6 to 11 in Concessions IV and V of Eby Township (Plan # M-345) of the Larder Lake Mining Division. This property is located at Latitude 48°04'00" and Longitude 80°14'00" (UTM Zone: 531824N, 574057E). "Figure 2a. Claim Map", and "Figure 3a. Geology Otto Township" provide additional information regarding location.

Otto Township Property

This property consists of 9 claims totalling 25 claim units in lots 6 to 11 in Concession V of Otto Township (Plan # M-379) of the Larder Lake Mining Division. This property is located at Latitude 48°05'00" and Longitude 80°08'00". "Figure 2b. Claim Map", and "Figure 3b. Geology Eby Township" provide additional information regarding location.

C. PROPERTY

Eby West Property (Figure 2a)

The Eby Township property includes the following 20 claims comprising 34 claim units.

1205781 - NW 1/4 of N 1/2 of Lot 6, Conc IV, Eby Tp (1 unit)
1205782 - NE 1/4 of N 1/2 of Lot 7, Conc IV, Eby Tp (1 unit)
1205783 - NW 1/4 of N 1/2 of Lot 7, Conc IV, Eby Tp &
- NE 1/4 of N 1/2 of Lot 8, Conc IV, Eby Tp (2 unit)
1205784 - NE 1/4 of S 1/2 of Lot 8, Conc V, Eby Tp (1 unit)
1205787 - NW 1/4 of N 1/2 of Lot 8, Conc IV, Eby Tp (1 unit)
1205788 - NW 1/2 of N 1/2 of Lot 9, Conc IV, Eby Tp (2 unit)
1205789 - S 1/2 of S 1/2 of Lot 9, Conc V, Eby Tp (2 unit)
1205790 - N 1/2 of N 1/2 of Lot10, Conc IV, Eby Tp (2 unit)
1205791 - N 1/2 of N 1/2 of Lot11, Conc IV, Eby Tp (2 unit)
1205792 - S 1/2 of N 1/2 of Lot11, Conc IV, Eby Tp (2 unit)
1205793 S 1/2 of N 1/2 of Lot10, Conc IV, Eby Tp (2 unit)
1205794 - S 1/2 of N 1/2 of Lot 9, Conc IV, Eby Tp (2 unit)
1205795 - S 1/2 of N 1/2 of Lot 8, Conc IV, Eby Tp (2 unit)
1205796 - S 1/2 of N 1/2 of Lot 7, Conc IV, Eby Tp (2 unit)
1205797 - S 1/2 of Lot 6, Conc IV, Eby Tp (4 unit)
1205798 - S 1/4 of N 1/2 of Lot 6, Conc IV, Eby Tp (2 unit)
1205799 - NW 1/4 of S 1/2 of Lot10, Conc IV, Eby Tp (1 unit)
1205800 - SW 1/4 of S 1/2 of Lot10, Conc IV, Eby Tp (1 unit)
1202474 - NW 1/4 of S 1/2 of Lot 7, Conc IV, Eby Tp (1 unit)
1202479 - SW 1/4 of S 1/2 of Lot 7, Conc IV, Eby Tp (1 unit)

The work was performed on claims 1205783, 1205784, 1205787, 1205788, 1205789, 1205790, 1205793 and 1205794, 125795 and 1205796 (Figure 2a).

Otto Township Property (Figure 2b)

The Otto Township property includes 9 claims comprising 25 claim units. The work was performed on the following two claims:

1206408 - N 1/2 of S 1/2 of Lot 11, Conc V, Otto Tp (2 unit)
1206295 - SW 1/4 of S 1/2 of Lot 11, Conc V, Otto Tp (1 unit)

Joseph Horne, co-holder of this property, extended the grid to the east and conducted similar OPAP funded exploration.

D. ACCESS (Figure 1)

Eby West Property

To access the Eby Township property, travel south 4.0 km along Highway 66 from the intersection with Highway 11. Turn right onto the West Road and proceed west. The best points of access are located 3.0 and 4.6 km west of Highway 66. At 3.0 km west of Highway 66 an old logging road accesses the east end of the grid. At 4.6 km west of Highway 66, a dry forest access road to the north gives excellent access across the west end of the property. This road was flagged to the 56+00E of the 0+00N base line. An old winter access road (wet) provides foot access to the central portion of the grid.

Otto Township Property (Amikougami Creek)

To access the Otto Township property, travel south 3.2 km along the Otto Township #1 Road. Park on the straight stretch of road beside a field on the east side of the road. This place is located in the east end of the proposed exploration area.

E. REGIONAL GEOLOGY

Eby West Property (Figures 2a & 3a)

Stratigraphically the project area falls within the Kinojevis Group which consists mainly of Mg-rich and Fe-rich tholeiitic basalt lavas with some tholeiitic dacite and rhyolite towards the top of the group.

Structurally the project falls within the projection of Larder Lake-Kirkland Lake Deformation Zone which consists of a series of east trending breaks with associated Fe-carbonate alteration. These breaks and associated alteration zones appear to extend from beneath Lake Kenogami to the linear swamp along the concession IV-V line. This area is along the projection of a strong break identified during 1994 OPAP mapping of the Reed and Robinson properties 1.6 to 4 km east of the junction of Highway 11 and Highway 66. At that location a series of east trending alteration zones and a series of crosscutting south east trending alteration zones are associated with a strong

deformation zone identified. These alteration and deformation zones appear to project from south of Vigrass Lake in Otto Township though the midpoint of Lot 2 Concession VI Eby Township to the swamp along the northern portion of this property.

Otto Township Property (Figures 2b & 3b)

Stratigraphically the project area falls within the Larder Lake Group volcanics and older Skead Group volcanics south of the Larder Lake Group. The Larder Lake Group is mainly ultramafic and basaltic komatiite and Mg-rich tholeiitic basalt with minor Fe-rich tholeiitic and calcalkalic basalt and andesite. Calcalkalic dacite and rhyolite tuff are near the base. Stratigraphically below and to the south is the Skead Group consisting of mainly coarse fragmental calcalkalic basalt, andesite, dacite and rhyolite. The younger Temiskaming Group volcanics and sediments are located north of the property. The Temiskaming group is comprised of mafic to felsic trachyte volcanics and wacke, arkose and siltstone sediments. South of the property is the Otto Stock syenite.

Structurally the north part of the grid falls at the south edge of the Larder Lake-Kirkland Lake deformation zone. This zone consists of a series of east trending breaks with associated Fe-carbonate alteration. These deformation zones extend from the Blanche River 2800 meters to the north, to the north edge of the grid were the associated alteration was identified during mapping in 1996.

F. PROSPECTING TARGETS

The expected gold targets could be hosted in wide alteration/deformation zones or narrow high grade vein deposits within narrow alteration zones. The deposits associated with the Larder Lake Main Break are commonly associated with alteration/deformation zones parallel to or splaying off the Larder Lake Break. For example, the high grade vein deposits at Kirkland Lake are associated with the Kirkland Lake Break to the north of the Larder Lake Break. Sulphide contents of expected deposits could range from minor disseminated pyrite to massive sulphides.

The Otto Tp. grid is also targeted for Base Metal exhalite deposits associated with felsic volcanics and volcano-clastic sediments.

G. SUMMARY OF PREVIOUS WORK

Eby West Property

Prior to 1985 very little assessment work was recorded on this property. A few test pits and possibly a drill hole are present on the east end of the property. The only systematic work done on the property was done in 1985 by Mary Ellen Resources. At this time a metric grid having a 100 m line spacing with pickets established at 25 m was cut. VLF and magnetometer surveys at 25 m station intervals and geological mapping were performed. The bulk of the detailed work was performed on the ground to the north along the then known deformation zone cutting the south east bay of Kenogami Lake.

This property lay dormant from 1985 to 1995 at which time the author staked the ground when it came open. In 1995 the author initiated mapping and geophysics over the central portion of the property.

Otto Township Property

KL-0235 is the only assessment file relating to this proposed area of exploration in Otto Township. This file documents trenching to the south and a single trench to the west of the claim group. No geological mapping or assays relating to this assessment work are recorded. This report made reference to a rhyolite outcrop at the extreme north west corner of the claim group. This rhyolite was identified 400 metres to the south at 4+55S of Line 47+85E. Work done by Minorex Ltd. was done far to the east of the area explored.

H. TYPE AND AMOUNT OF PROSPECTING-EXPLORATION WORK

Eby West Property

In 1995 23.964 line km of grid with line spacing of 100 m was cut to control detailed geological mapping and associated hand stripping, a magnetometer survey and a MaxMin EM survey. Lines were cut by Douglas Robinson, David Robinson and Graham Robinson. All mapping was performed by the author. A 23.900 km magnetometer survey was performed by Douglas Robinson, David Robinson and Graham Robinson December 18-22, 1995. David Robinson and Graham Robinson performed 16.250 km of MaxMin survey July 28-Aug 3, 1995.

In 1996 an additional 7.274 km of grid was cut prior to detailed geological mapping, a gradiometer magnetometer survey and an EM survey. A 7.025 km high density magnetometer survey was done with readings recorded at approximately 1 metre intervals. A 7.900 km MaxMin EM survey was performed using two frequencies to identify and to distinguish between shear related and sulphide/graphite related conductors. Detailed geology, and hand stripping were also conducted on the area covered by the cut grid.

Otto Township Property

In 1996 a metric grid totalling 9.932 km, detailed geological mapping, gradiometer magnetometer surveys and EM surveys were performed. 9.975 km of high density magnetometer surveying was done with readings recorded at approximately 1 metre intervals. 5.600 km of MaxMin EM surveying was performed using two frequencies to identify and to distinguish between shear related and sulphide/graphite related conductors. Geology, lithological sampling, gold sampling and hand stripping were also conducted on the area covered by the cut grid.

I. LINE CUTTING

Eby West Property

In 1995 a metric grid totalling 23.964 line km; with line spacing of 100 m and a 25 m picket interval, was cut to control detailed geological mapping hand stripping, a magnetometer survey and a MaxMin EM survey. Lines were cut by Timothy Fielding, David Robinson and Graham Robinson. In 1996 this grid was extended by 9.932 km with line spacing of 50 m and 25 m station interval was cut by David Robinson, Timothy Fielding, Graham Robinson, Barry Deibel-Gilmour and Canadian Gems and Minerals. This grid is the westward extension of a grid cut during 1995.

Otto Township Property

A 7.274 km of metric grid with line spacing of 50 m and 25 m station interval was cut by David Robinson, Timothy Fielding and Graham Robinson. The east coordinates of this grid were established to be roughly equivalent to the Allsopp grid directly to the north and the Reed-Robinson grid 800 meters to the north. The base line was spotted at a 1 inch square iron bar located at the northeast corner of claim 1206408. This base line ended 1.5 metres north of the square iron bar at the north west corner of the same claim. Lines 47+85E and line 52+00E both ended within two metres of 1 inch square iron bars located at the south corners of claim 1206295. The grid was extended north to the south tie line of the Allsopp grid. This was done with permission from Mr Allsopp for the mutual benefit of the author and Mr Allsopp. The intercept coordinates of the Allsopp grid are recorded along the north edge of the geology map.

Lines List: Eby West Grid and Otto Township Grid

Grid	Line	From	To	Length
1995				
Eby W	14+00W	1189S	425N	1614
Eby W	15+00W	400S	450N	850
Eby W	16+00W	425S	825N	1250
Eby W	17+00W	425S	825N	1500
Eby W	18+00W	425S	825N	1250

Eby W	19+00W	425S	825N	1250
Eby W	20+00W	425S	825N	1250
Eby W	21+00W	425S	450N	875
Eby W	22+00W	425S	450N	875
Eby W	23+00W	425S	450N	875
Eby W	24+00W	450S	850N	1300
Eby W	25+00W	450S	875N	1325
Eby W	26+00W	450S	875N	1325
Eby W	27+00W	475S	800N	1275
Eby W	28+00W	475S	750N	1225
Eby W	29+00W	000N	800N	800
Eby W	4+00S TL	1400W	2975W	1575
Eby W	0+00N BL	1400W	2900W	1500
Eby W	4+00N TL	1400W	2950W	1550
Eby W	7+50N BL	2400W	2900W	500
			Total	23964

1996

Eby W	3000W	800N	000N	800
Eby W	3100W	800N	000N	800
Eby W	3200W	400N	000N	400
Eby W	3300W	400N	000N	400
Eby W	3400W	380N	000N	380
Eby W	3500W	375N	000N	375
Eby W	3600W	375N	000N	375
Eby W	3700W	372N	000N	372
Eby W	3800W	372N	000N	372
Eby W	3900W	400N	000N	400
Eby W	0000N	4500W	3100W	1400
Eby W	0400N	3900W	2900W	1000
Eby W	0800N	3100W	2900W	200
Otto	4800E	089N	850S	939
Otto	4850E	089N	425S	514
Otto	4900E	093N	850S	943
Otto	4950E	090N	425S	515
Otto	5000E	087N	850S	937
Otto	5050E	088N	425S	513
Otto	5100E	050N	850S	900
Otto	5200E	050N	830S	880
Otto	5300E	000N	425S	425
Otto	5400E	000N	425S	425

Otto	5500E	000N	425S	425
Otto	5600E	000N	475S	475
Otto	000N	5600W	4785W	815
Otto	0400S	5600W	4775W	825
Otto	0800S	5201W	4800W	401
TOTAL				17206 Metres

Eby West Total 1995 23.964 Km.
Eby West Total 1996 7.274 Km.
(31.238)Km.

Otto Tp. Total 1996 9.932 Km.
Total 41.270 Km.

J. MaxMin HORIZONTAL LOOP EM SURVEY

Eby West and Otto Township Properties

Metric grids with a 100 metre line spacing and 25 m station interval were used for positional control during this survey. The MaxMin EM survey was directed to locating the surface trace and character of conductive formations within the grid area. Frequencies 3555 and 888 Hz were selected to identify structurally related and sulphide/graphite conductive sources.

Terrain corrections were performed by recording a running average slope of four station intervals. The coils were maintained coplanar using the average slopes determined in the field during the traverses.

A separate data profile sheet was plotted for each line. Each sheet records the terrain profile, In Phase response (IP), and Quadrature Phase (QP) response for both frequencies. This presentation was used to facilitate interpretation of the multi-frequency data and to allow easy reproduction using standard xerox machines. The profiles were plotted at 1:2500 scale and Xerox reduced for enclosure in this report. These data profile sheets can be reproduced at 1:2500 scale by xeroxing at 1.55 times.

EM Traverse List: Eby West Property

Line Number	Survey Limits		Traverse Length Metres
1995			
14+00W	1175S	475N	1650
15+00W	475S	500N	975
16+00W	450S	875N	1325
17+00W	450S	875N	1325
18+00W	450S	875N	1325
19+00W	450S	875N	1325
20+00W	450S	875N	1325
21+00W	450S	500N	950
22+00W	475S	500N	975
23+00W	450S	475N	925
24+00W	475S	875N	1350
25+00W	500S	925N	1425
26+00W	450S	925N	1375
13 lines		Total	16250 m
1996			
27+00W	450S-750N		1200
28+00W	450S-750N		1200
29+00W	000N-800N		800
30+00W	000N-800N		800
31+00W	000N-800N		800
32+00W	000N-400N		400
33+00W	000N-400N		400
34+00W	000N-375N		375
35+00W	000N-375N		375
36+00W	000N-375N		375
37+00W	000N-400N		400
38+00W	000N-375N		375
39+00W	000N-400N		400
13 Lines	Total		7900 m
Total 26 lines			24.150 km

The anomalies listed and described below were dominantly 3555 Hz responses with little or no 888 Hz response. This indicates these responses are caused by structural features, possibly including shears/breaks, and resistivity contrast at the contacts between resistive rocks and less resistive rocks.

These features may host non conductive disseminated sulphides that commonly host Au deposits in and near the Larder Lake-Kirkland Lake Break. Of particular interest are the possible contacts between resistive silicification/Fe-carbonate alteration and less resistive sometimes fractured rock adjacent to this alteration. Shears and breaks associated with this favourable alteration are also targeted as 3555 hz responses.

EM Anomaly LIST: Eby West Property

IP = In phase response
QP = Quadrature phase response.

Line Number	Anomaly Number	Anomaly Description
14+00W	1400W-1050S	3555 QP>IP. Probably broad structure with possible sulphides or graphite.
	1400W-882S	3555 & 888 IP. Response on the north edge of a strong magnetic high (possible short cable). Strong QP & IP responses between 1100S and 950S indicate lines should run 50 metres on either side of this line.
	1400W-345N	3555 QP. Probably a strong structure in mag low.
15+00W	1500W-365N	888 IP in mag low. Possible weak sulphides or graphite associated with structure at 385N. Good exploration target to drill from south.
	1500W-385N	3555 QP. Probable structure at south edge of a prominent mag high in deep overburden.
16+00W	1600W-175S	3555 QP from 100S to 175S in mag low in swamp, possible north trending structure.
	1600W-028S	3555 QP? at north edge of mag high in swamp, possible north

			trending structure.
	1600W-040N	3555	QP? in mag low in swamp, possible north trending structure.
	1600W-337N	888	IP>QP. Possible weak sulphides or graphite at the north edge of a mag high..
	1600W-400N	3555	QP (strong). Probable strong structure at south edge of mag high.
	1600W-687N	3555	QP? in narrow break in a mag high. Possible structure or contact.
17+00W	1700W-025S	3555	QP (very weak). Possible north contact of a magnetic flow.
	1700W-409N	3555	QP. 275-409N broad conductive zone with subdued mag probably in deep overburden.
	1700W-715N	3555	QP (very weak) in mag low (probably tuff or sediment)
18+00W	1800W-420N	3555	QP (strong & wide). Probable strong structure in mag low. Drill target.
19+00W	1900W-028S	888	QP (weak) in flat mag low. (possible wide weak sulphides).
	1900W-425N	3555	QP in flat mag low. Probable structure and alteration.
20+00W	2000W-062S	3555	QP?(very weak) in mag low.
	2000W-300N	3555	QP at south edge of deep conductive overburden and on north edge of mag high.
	2000W-465N	3555	QP. Probable strong structure in narrow mag low.
21+00W	2100W-335S	3555	QP>IP in flat mag low. Possible weak sulphides or weak structure.

	2100W-250N	3555 QP. Probable contact at south edge of mag high.
	2100W-300N	3555 QP. Strong. 888 IP. Possible sulphides from in structure in mag low. Possible drill target.
22+00W	2200W-214S	3555 QP? (Very weak) in mag low south of mag high.
	2200W-025S	3555 QP? (Very weak) in mag low south of mag high. Probable contact.
	2200W-375N	888 IP at edge between mag high to south and narrow mag low.
	2200W-416N	3555 QP at narrow break in mag high.
23+00W	2300W-282S	888 IP at south edge of mag high. Possible sulphides or graphite. Should be verified.
	2300W-215N	3555 QP (very weak) at north edge of a mag high.
	2300W-150N	888 IP? in narrow mag low north of a mag high. Probable tuff bed or sediment.
24+00W	2400W-192S	888 IP in low relief mag.
	2400W-050S	3555 QP in south portion of a broad mag high with moderately deep source.
	2400W-115N	888 IP in a break of a near surface mag high response. A possible weak sulphides or graphite source.
	2400W-160N	3555 QP in a break of a near surface mag high response.
	2400W-665N	3555 QP (strong). Probable strong structure in an area of flat mag (possible alteration).
	2400W-774N	3555 QP (strong). Probably a structure in a mag low (possible alteration).

25+00W	2500W-266S	3555	QP (weak) in a narrow mag low.
	2500W-050N	3555	& 888 IP? (weak, should be verified).
	2500W-502N	3555	& 888 IP? at south edge of mag high. Possible weak sulphides or graphite.
	2500W-616N	3555	QP>IP & weak 888 IP. Probable structure and alteration with possible minor sulphides or graphite.
	2500W-700N	3555	QP>IP & weak 888 IP. Probable structure and alteration with possible minor sulphides or graphite.
	2500W-786N	3555	QP>IP & weak 888 IP. Possible structure and possible minor sulphides or graphite.
26+00W	2600W-150S	3555	QP at break in mag high.
	2600W-000N	3555	QP (moderate) in 50 m wide mag low.
	2600W-343N	888	IP either in minor break of mag high or within mag high.
	2600W-410N	3555	QP. Possible strong structure in 25-30 m. wide mag low.
	2600W-475N	3555	QP. Possible strong structure in mag low.
	2600W-561N	3555	QP? in minor break in mag high.
	2600W-750N	888	IP=QP. Possible sulphides or graphite in alteration marked by mag low (exploration target).
	2600W-775N	3555	QP. Possible structure in alteration marked by flat mag.
	2600W-825N	3555	QP. Possible structure in alteration marked by flat mag.
27+00W	2700W-400S	3555	QP IP? Possible short cable affect at start of line). Possible deep overburden.
	2700W-175S	888	Very weak IP at south edge of mag low. Possible weak sulphides or graphite.

	2700W-150S	3555	QP at north edge of mag low. Possible contact of structure.
	2700W-350N	3555	IP at 40 m wide mag low.
		888	IP. This response should be verified by resurveying.
	2700W-410	3555	Broad QP at south edge of mag high. Possible south contact of magnetic body and possible response at north edge of same body.
28+00W	2800W-175S	3555	QP>IP in narrow mag low. Possible contact. Low priority target.
	2800W-012S	3555	IP >QP.
		888	IP>QP at a break in an extreme mag high. Possible topographical affect. Line should be resurveyed with and rechained in area of anomaly.
	2800W-385N	3555	IP=QP on south edge of mag high (in area of deep overburden).
		888	Very weak QP. Possible strong break. Exploration target.
	2800W-575N	3555	QP>IP in narrow mag low with broad mag low. MEDIUM PRIORITY TARGET.
29+00W	2900W-387N	3555	Broad QP at south edge of mag low.
	2900W-550N	3555	Broad QP in mag low. Possible southeast trending alteration zone or break. HIGH PRIORITY TARGET.
30+00W	3000W-050N	3555	QP at south edge of an extreme mag high. Profile incomplete.
	3000W-600N	3555	QP in mag low. Possible southeast trending alteration zone or break. PRIORITY TARGET.
31+00W	3100W-114N	3555	QP in extreme mag high response.
	3100W-275N	3555	IP=QP at north edge of mag low.
		888	Weak IP>QP. Possible alteration zone or break. Possible sulphides. HIGH PRIORITY TARGET.

	3100W-460N	3555	Possible IP in mag low Possible alteration.
	3100W-685N	3555	Strong QP>IP in mag low.
		888	Very weak QP. Possible southeast trending alteration zone or break. HIGH PRIORITY TARGET.
32+00W	3200W-237N	3555	Broad Qp>IP at south edge of mag high. Possible contact. Possible QP response at 385N at north contact of same body.
33+00W	3300W-150N	3555	Possible weak QP at south edge of mag high Possible contact.
34+00W	3400W-100N	3555	Very weak QP in mag low Possible alteration zone or break. LOW PRIORITY TARGET.
	3400W-350N	3555	Possible weak QP at south edge of mag low. Possible alteration zone or break.
35+00W	3500W-100N	3555	QP>IP in mag low.
		888	Weak QP. Possible alteration zone or break. MEDIUM PRIORITY TARGET.
	3500W-325N	3555	Strong QP>IP in mag low.
		888	Weak QP. Possible alteration zone or break. MEDIUM PRIORITY TARGET.
36+00W	3600W-150N	3555	Strong IP=QP in mag low. Possible alteration zone or break. MEDIUM PRIORITY TARGET.
	3600W-350	3555	Possible IP=QP on north edge of mag low. Profile not complete. Possible alteration zone or break. MEDIUM PRIORITY TARGET.
37+00W	3700W-263N	3555	IP on south edge of broad mag low. Possible alteration zone or break.

			MEDIUM PRIORITY TARGET.
38+00W	3800W-190N	3555	Strong IP=QP on north edge of mag low.
		888	Very weak IP Possible alteration zone or break. Possible weak sulphides or graphite. HIGH PRIORITY TARGET.
39+00W	3900W-190N	3555	Weak QP on south flank of mag high. Probable contact.
	3900W-350N	3555	IP=QP In mag low. Possible alteration zone or break. MEDIUM PRIORITY TARGET.

Otto Township

EM Traverse List: Otto Township Property.

Line Number	Survey Limits	Traverse Length Metres	
47+85E	850S-075N	925	
49+00E	850S-075N	925	
50+00E	825S-075N	950	
51+00E	825S-050N	875	
52+00E	675S-050N	725	
53+30E	400S-000N	1200	
6 Lines	Total	5600	Metres

The anomalies listed and described below included anomalies that are dominantly 3555 Hz responses with little or no 888 Hz response. This indicates these responses are caused by structural features, possibly including shears/breaks, and resistivity contrast at the contacts between resistive rocks and less resistive rocks. These features may host non conductive disseminated sulphides that commonly host Au deposits in and near the Larder Lake-Kirkland Lake Break. Of particular interest are the possible contacts between resistive silicification/Fe-carbonate alteration and less resistive sometimes fractured rock adjacent to this alteration. Shears

and breaks associated with this favourable alteration are also targeted as 3555 hz responses.

Also encountered were several responses that were moderate to strong at 888 Hz in addition to at 3555 hz. These appear to be caused by strong sulphide mineralization and/or graphite. The high incidence of sulphides on the property suggests these are sulphide caused anomalies.

EM Anomaly List: Otto Township Property

IP = In phase response
QP = Quadrature phase response.

Line Number	Anomaly Number	Anomaly Description
47+85E	4785E-613S	3555 IP>QP. 888 IP=QP. Probably sulphides or graphite subcropping under clay overburden. Associated mag high indicates pyrrhotite may be part of the source.
49+00E	4900E-675S	3555 QP. Source probably structure on strike with anomaly 5000E-628S to the east.
	4900E-525S	3555 Strong IP=QP. 888 Weak QP. Source probably strong structure with possible sulphides.
	4900E-090S	3555 IP. 888 IP. Possible short cable affect. Lines 48+50E and 49+50 east should be surveyed and this line should be checked
50+00E	5000E-628S	3555 Strong IP>QP. 888 Strong IP>QP. Strong conductor, probably sulphides +/- graphite. Strong magnetic response indicates

			pyrrhotite probably part of the source. PRIORITY TARGET
	5000E-437S	3555 888	Moderate IP=QP. Moderate IP>QP. Probably structurally related to south contact of felsic unit 4r. The north contact of this unit may also have a weak response at 325-375S.
51+00E	5100E-616S	3555 888	Strong IP>QP. Moderate IP>QP. Moderately strong conductor, probably structure with minor and/or disseminated sulphides on strike with conductor 5000E-628S. Strong magnetic response indicates pyrrhotite probably part of the source.
	5100E-265S	3555 888	Strong QP. Weak QP. Probably structurally related to north contact of felsic unit 4r. Moderate magnetic response indicates pyrrhotite probably part of the source.
52+00E	5200E-300S	888	Very weak IP. Strong magnetic response indicates pyrrhotite or magnetite are probably part of the source.
	5200E-225S	3555	Strong QP>>IP. This is probably a structurally related response.
53+30E	5330E-175S	3555 888	Strong QP>>IP. Weak QP. This is probably related to a strong structure.

K. MAGNETIC SURVEY

Data was collected in the following format:

East	North	Nt	Noise	Time	Gradient Nt/M
3801	-875	57796.5	0.16	14.184167 0	3.9
3801	-873.214	57791.9	0.11	14.184722 0	3.4
3801	-871.429	57783.2	0.11	14.185556 0	2.8
3801	-869.643	57778.3	0.11	14.186111 0	3.8
3801	-867.857	57773.3	0.11	14.186667 0	3.7
3801	-866.071	57767.1	0.11	14.187222 0	2.6
3801	-864.286	57760.2	0.10	14.187778 0	2.7
3801	-862.5	57760.4	0.09	14.188333 0	3.7

During data collection the line number was keyed in as a true coordinate ie 3800. If problems occurred that interrupted data collection, the line was resumed adding a single unit to the line number ie 3801. Gradient data was collected but not plotted at this time.

Magnetic lows are targeted as targets for gold mineralization. The probable causes of magnetic lows are:

1. Alteration including pervasive Fe-carbonate replacement of silicate rocks and silicification, both being potential hosts for secondary Au mineralization.
2. Sediment/tuff horizons which are a favourable host for a primary Au deposits.
3. Non-magnetic flows and dikes.

These three potential sources of magnetic lows will have similar signatures. In this report, the magnetic lows with EM responses are considered favourable exploration targets. EM responses located at the boundary between magnetic highs and magnetic lows are favourable as they could represent the contact between unaltered rocks and magnetite destructive alteration that may host Au deposits. The EM response would support the interpretation as the EM would respond to the resistivity contrast giving a 3555 Hz response. EM responses within magnetic lows are also exploration targets as they could reflect conductive breaks associated with magnetite destructive alteration that may host Au deposits.

Magnetic Traverse List: Eby West Property

Line Number	Survey Limits	Traverse Length Metres
1995		
14+00W	1175S-375N	1550
15+00W	400S-450N	850
16+00W	450S-850N	1300
17+00W	450S-825N	1275
18+00W	450S-825N	1275
19+00W	450S-850N	1300
20+00W	450S-850N	1300
21+00W	450S-450N	900
22+00W	450S-500N	950
23+00W	450S-475N	925
24+00W	475S-875N	1350
25+00W	475S-875N	1350
26+00W	475S-875N	1350
27+00W	450S-800N	1250
28+00W	500S-825N	1325
29+00W	000N-825N	825
4+00S TL	1400W-2975W	1575
0+00N BL	1400W-2900W	1500
4+00N TL	1400W-2950W	1550
7+50N BL	2700W-2900W	200
20 lines	Total	23900 m
1996		
29+00W	000N-400N	400
30+00W	000N-800N	800
31+00W	000N-800N	800
32+00W	000N-400N	400
33+00W	000N-400N	400
34+00W	000N-375N	375
35+00W	000N-375N	375
36+00W	025S-375N	400
37+00W	000N-400N	400
38+00W	025S-400N	425
39+00W	000N-400N	400
0+00N BL	2800W-4400W	1600
4+00N TL	3150W-2900W	250
13 Lines	Total	7025 m
TOTAL		30.925 km

Eby west has a high background magnetic field with strong magnetic relief. The strong magnetic relief appears to be related primarily to background magnetite in the volcanics. Many favourable magnetic lows were identified and are discussed in the preceding EM section of this report.

Magnetic Traverse List: Otto Township Property

Line Number	Survey Limits	Traverse Length Metres
47+85E	850S-075N	925
48+50E	425S-075N	500
49+00E	850S-075N	925
49+50E	425S-075N	500
50+00E	850S-075N	925
50+50E	425S-075N	500
51+00E	850S-050N	875
52+00E	850S-050N	900
53+30E	425S-000N	425
54+00E	425S-000N	425
55+00E	475S-000N	475
56+00E	475S-000N	475
0+00N BL	4775E-5600E	825
4+00S TL	4775E-5675E	900
8+50S TL	4800E-5200E	400
15 Lines	Total	9975 METRES

Otto Tp grid has a relatively low background magnetic field with locally strong magnetic relief. The strong magnetic relief is in large part related to high background levels of pyrrhotite in the rocks. Possible sedimentary magnetite bearing horizons may also cause some of the magnetic relief. Some of the volcanics also appear to be magnetic due to magnetite concentrations. Magnetic lows were identified and are discussed in the preceding EM section of this report.

L. GEOLOGICAL SURVEY

Eby West Property

Tholeiitic volcanics and interflow tuffs and metasediments are the dominant rock type within the claim group (MNDM map "Map 2239"). It was not possible to differentiate any significant mappable units within the volcanic flows, however numerous very fine to coarse tuff beds and local pillows and flow tops indicate a consistent northwest strike. The volcanics range from very fine to 2 mm crystalline massive flows, with local flow texturing including a few pillowed flows. 0.5 cm quartz boudins are common in some of the tuff beds indicating

considerable shearing. Some of the flows are magnetic due to the presence of tiny magnetite crystals. The magnetometer survey confirms the northwest trend of the volcanic flows.
A linear east-west swampy depression along the Concession IV-V line and a broad swampy area of claim 1205789 are areas of low total magnetic field with low magnetic relief. This disruptive magnetic signature appears to be related to destructive alteration controlled by deformation zones that host ore deposits in the Larder Lake-Kirkland Lake mining camp. No outcrops were observed in these areas. Strong EM conductors within these magnetic lows appear to be strong structures that control alteration. These potential structures and the inferred alteration are targets for gold hosted in quartz veins or disseminated sulphides.

1994 mapping by the Author within Lots 1 and 2 of Concession IV of Eby Township indicate previously unknown major deformation zones exist 1.2 km and 2.9 km south of the Blanche River. These deformation zones are hosted in Fe carbonate-albite-sericite alteration zones parallel to the Larder Lake Break. The author staked the Eby West Group to cover the west projection of these alteration zones.

Otto Township Property
A massive white weathered silicious unit through the centre of the property unit mapped as "4r" (rhyolite) marks the change between massive dark green mafic volcanics to the north and mafic to felsic pyroclastic sediments to the south. This unit is bounded to the north and south by a strongly chloritic, often schistose, fine to coarse pyroclastic. This pyroclastic consists of massive chlorite matrix with felsic clasts to 1-40 cm. At 4785E-613S, 4900E-525S, 5000E-437S and 5200E-300S this south chlorite unit is a MaxMin response that appears to have responded to a sulphide source. This is a target for advanced gold and base metal exploration. At 5100E-265S, 5200E-225E, and 5330E-175S a strong 3555 hz response indicates a strong structure may be located within the chlorite unit along the north contact of rhyolite unit "4r". This area is a target for advanced gold exploration to identify favourable alteration and Au mineralization.

Minor sections of red potassic alteration (K-feldspar) were

observed within the chloritic unit along the north edge of the rhyolite unit.

South of the rhyolite unit the rocks are interbanded mafic to felsic tuffs that have high background levels of pyrite and pyrrhotite. Located at 4900E-675S, 5000E-628S and 5100E-616S is a strong EM response that appears to have a sulphide source. A cherty horizon at this location on line 50+00E is sulphide rich with a box-work limonite gossan. This location is the strongest and widest portion of this conductor and is a target for advanced exploration for gold and base metals.

The rhyolite unit and related chlorite contact zones and the mafic-felsic pyroclastic sediments strike east northeast and appear to be of the Skead Group volcanics. To the north the rocks are massive dark green mafic volcanics that appear to be Larder Lake Group. The trend of these volcanics was not established.

The south edge of the map is the Otto syenite stock. This unit is coarsely porphyritic and has mafic xenoliths aligned parallel to its contact with the volcanics to the north. The volcanics near the stock appear to be hornfelsed.

Along line 47+85E at 0+50N strong silicification and Fe-carbonate alteration with associated quartz veining to 15 cm was identified.

Assay values for gold are entered directly on the geological map as PPB Au. The locations of whole rock samples, their sample numbers and $\%SiO_2$ are recorded on the geological map. The best gold value was 267 ppb Au in wall rock beside a 50 cm quartz vein located 7+10S east of line 49+00E. This sample had minor disseminated pyrite in potassic alteration. Several Fe-carbonate float were identified in the area near this vein, but their source was not identified. The best base metal value was 1320 ppm Zn, 96 ppm Cu and 75 ppb Au in cherty grey rock (91.4% SiO_2) along the transition between the rhyolite unit and chlorite unit to the north (Line 5 m east of 47+85E at 4+55S).

M. RECOMMENDATIONS

Eby West Property

The eby west grid should be extended with blanket grid, geology, magnetic, and EM coverage at a 100 m line spacing. North of the 0+00N base line this coverage should be expanded to 50 m spacing as the strike of many of the EM responses identified. East-west grid lines at 2+00S, 2+00N and 3+75N should be cut and surveyed by IP, EM and magnetometer. The IP coverage would define areas of high background disseminated sulphides that are not detected by EM surveys.

In advance of any diamond drilling the target areas should be surveyed by EM and magnetometer at a 50 m line spacing to 200 m from the target to define the probable strike of the target and establish the optimum hole location.

On the basis of the available information the following holes are recommended:

1. Line 1600W at 280N -60° to 300 m.
   (anomaly 1500W-365N & 1500W-385N is also an excellent target)
2. Line 2500W at 450N -60° to 500 m.
3. Line 2800W at 300N -60° to 250 m.
   (Line 2700W at 275N -60° to 350 m. alternate location).
4. Line 3500W at 175N -60° to 350 m. or
   225N -60° to 225 m after mag and EM surveys to the east and west. Note! The target anomaly may be at low angle to the line 3500W.

Otto Township Property

Otto township exploration recommendations are discussed under section "L Geological Survey".

N. LIST OF REFERENCES

EBY TOWNSHIP

MEMOIR 131 - Canada Department of Mines
Kenogami, Round, and Larder Lake Areas, Timiskaming District, Ontario, By H. C. Cooke, 1922.

Geological Report 99 - Ontario Department of Mines Preliminary Geology of the Eby and Otto Area, District of Temiskaming
By H. L. Lovell, 1972.

Mineral Resources Circular No. 39 - Mineral Resources and Mining Properties in the Kirkland Lake-Larder Lake area. By W. S. Savage, 1964.

Map P. 448 - Ontario Department of Mines Preliminary Geological Map No. P. 448; Eby Township.
Scale 1 inch = 1/2 mile

Map P. 903 - Preliminary Map P.903; Kirkland Lake Data Series; Eby Township.
Scale 1 : 15 840

Map P. 2268 - Ontario Geological Survey Preliminary Map P.2268 Kirkland Lake Area; Eby Township; Airborne Electromagnetic Survey.

Map P. 2268 - Ontario Geological Survey Preliminary Map P.2268; Kirkland Lake Area; Eby Township; Airborne Electromagnetic Survey; Total Field Magnetic Survey.
Scale 1 : 20 000

OTTO TOWNSHIP

Map P. 330 - Ontario Department of Mines Preliminary Geological Map No. P. 330; Otto Township (North Half)
Scale 1 inch = 1000 feet

Map No. 501 - Preliminary Map No. 501; Otto Township and Northern Part of Marquis Township.
Scale 1 inch = 1/4 mile.

Map P. 717 - Ontario Department of Mines and Northern Affairs; Preliminary Map P. 717; Geochemical Distribution of Acid Soluble Copper in Felsic Plutonic Rocks; Otto Township and Parts of Eby, Marquis and Boston Townships.
Scale 1 inch = 1/2 mile

Map P. 718 - Ontario Department of Mines and Northern Affairs; Preliminary Map P. 718; Geochemical Distribution of Acid Soluble Lead in Felsic Plutonic Rocks. Otto Township and Parts of Eby, Marquis and Boston Townships.
Scale 1 inch = 1/2 mile

Map P. 719 - Ontario Department of Mines and Northern Affairs; Preliminary Map P. 719; Geochemical Distribution of Acid Soluble Molybdenum in Felsic Plutonic Rocks. Otto Township and Parts of Eby, Marquis and Boston Townships.
Scale 1 inch = 1/2 mile

Map P. 2269 - Ontario Geological Survey Preliminary Map P.2269; Kirkland Lake Area; Otto Township; Airborne Electromagnetic Survey.

Map P. 2269 - Ontario Geological Survey Preliminary Map P.2269; Kirkland Lake Area; Otto Township; Airborne Electromagnetic Survey; Total Field Magnetic Survey.
Scale 1 : 20,000

Douglas Robinson, P. Eng
February 25, 1997.

CERTIFICATE OF QUALIFICATIONS

I, Douglas Robinson, of 24 Victoria Avenue, Swastika, Ontario hereby certify that:

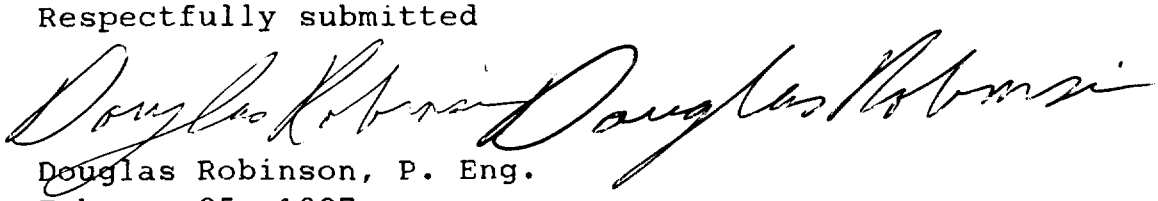
1. I am a registered professional Engineer of the province of Ontario, No. 39322011.

2. I am a graduate of Queen's University in Kingston Ontario with an Honours Bachelor of Science, Geological Engineering 1975, and Northern college, School of Mines in Haileybury, Ontario 1970.

3. I have been practising my profession since graduation.

4. The information contained in this report is the result of work done by myself or by persons under my supervision.

Respectfully submitted



Douglas Robinson, P. Eng.
February25, 1997

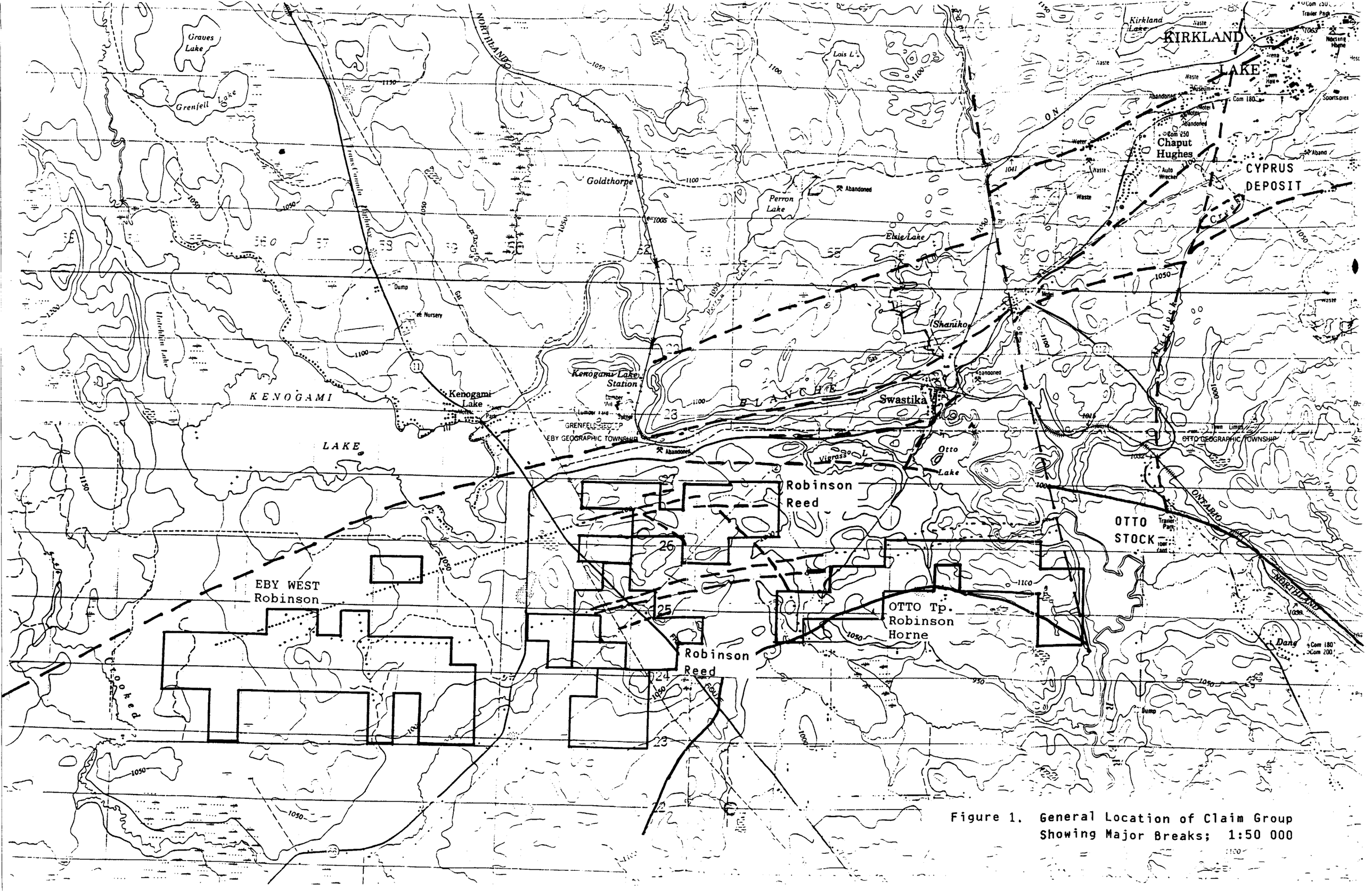


Figure 1. General Location of Claim Group Showing Major Breaks; 1:50 000

VI

V

IV

1200610 1186394 Kenogami 1186326 1186327 1186329 1186393 1186395 1186396 1186601 1187142 Lake

39696 L.O. 19629 39689 C.M.17 39690 41460 1186392 34386 1186391 34387 18312 L51580 18837 18227 8803 8950 18638 17659 16761 17658 M.R.O. 532930 CL7694 P11 532929 17862 1186328 L52226 17402 17403 41264 14800 14801 42159 CL 8095

1202820 1202847 640908 640903 640901 640900 640893 618673 9851 1205770 18402 18357 18356 9832 17401 12174 14935 1206402 1206401 CL7694 PIPE LINE

640966 640904 640902 640899 640894 618674 618675 1206403 1206404 9489 19129 16740 9846 12175 8857 8902 1202471

MAY 15 1996 640965 640964 640898 640895 618677 618676 9849 1202470

LATHER LAKE MINING RECORDER'S OFFICE 640962 640963 1205789 18495 1205784 16750 16749 1202472 1202473 16767 920 532 M.R.O.

1200632 1200631 1205791 1205790 1205788 1205787 1205783 1205782 1205781 1206669 1200895 738858 738577

935419 1205792 1205793 1205794 1205795 1205796 1205798

935418 1205799 1202474 1205797

935417 1205800 1202479

Figure 2a. Claim Map By Township; Scale 1:20000

12 11 10 9 8 7 6 5 4

VI

V

IV

N.O.N.R. lateral f...62526

L.O. 656

CL 4614

S.R.O.

CL 4615

Otto Lake

L.O. 32236

L.O. 32237

L.O. 32238

Vigross Lake

Hydro

66

842782 842660 843400

842767

544549 544544 M.R.O. M.R.O. M.R.O.

843837 843171 544546 544545

842495 842494 842493

737144 737143

475259 475260 475261 475258

16425 16424 8868 17723 8497 8498 8496 3759 9592 9593 18249 18248 16459 16458 16457 16442 16549 16443 15871 16497

891866 891867 891868 891869 Gravel Pit No.245 File 12960

917317 982696 982693 982695 982692 982694 982691 982690 982689 982637 982698

1180078 1045615 1132160 1045622 1097044 1132177

S.R.O.

511330 511331 511579 511580 511578 MRO

1186485 8357 2372 18873

1211454 1211456 1213818 1211455

1206406 1206408 1206407 1206295

511327 511328 511332

643393 642796 643018 679724 8020'98 16657

579549 631572 620944 579548

1136360 1131943 1131944

S.R.O. 8357

DATE OF ISSUE

MAY 15 1996

LIARD LAKE MINING RECORDER'S OFFICE

River

M.R.O. M.R.O. M.R.O. 550779 550935

Figure 2b. Claim Map Otto Township: Scale 1:20000

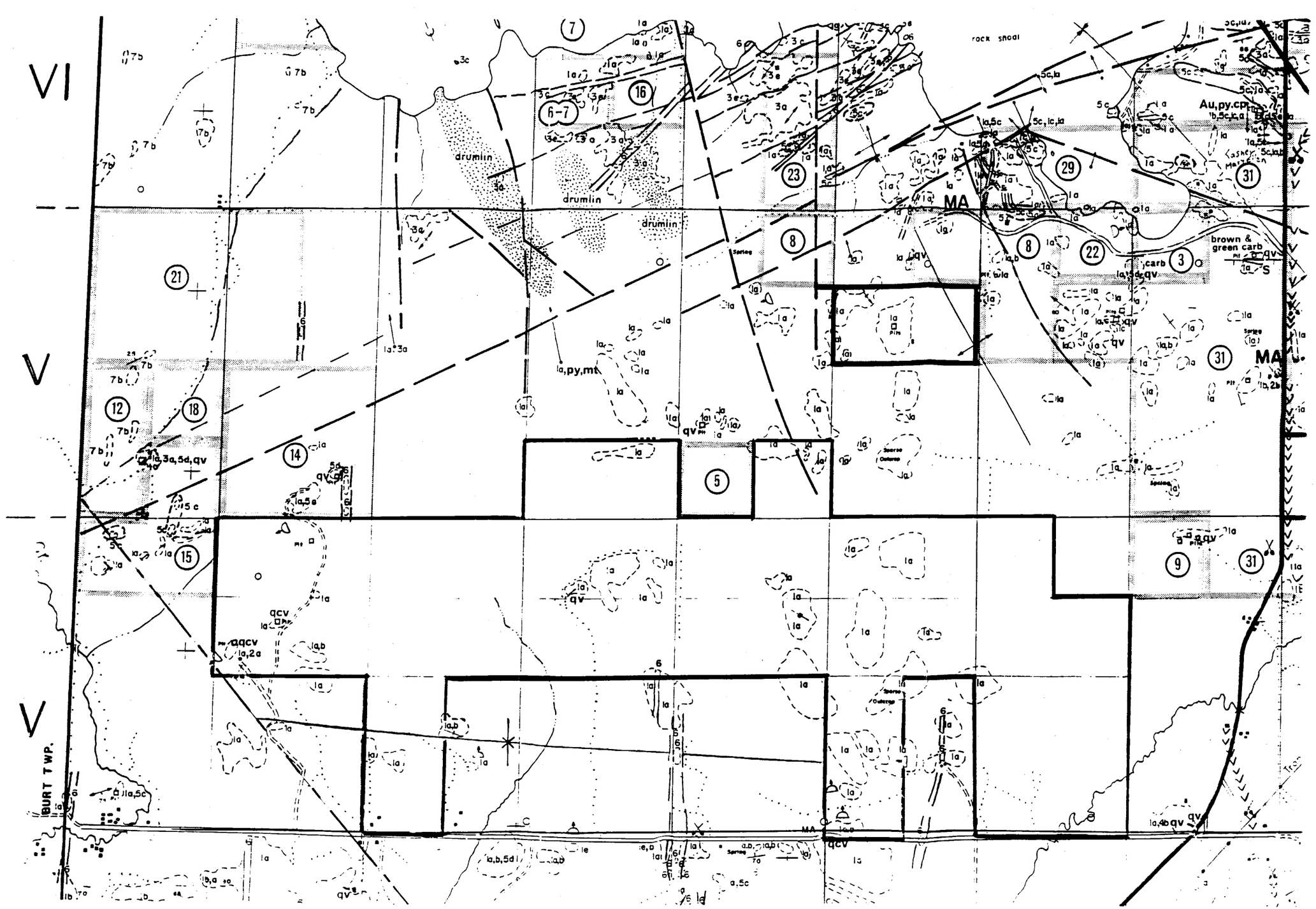
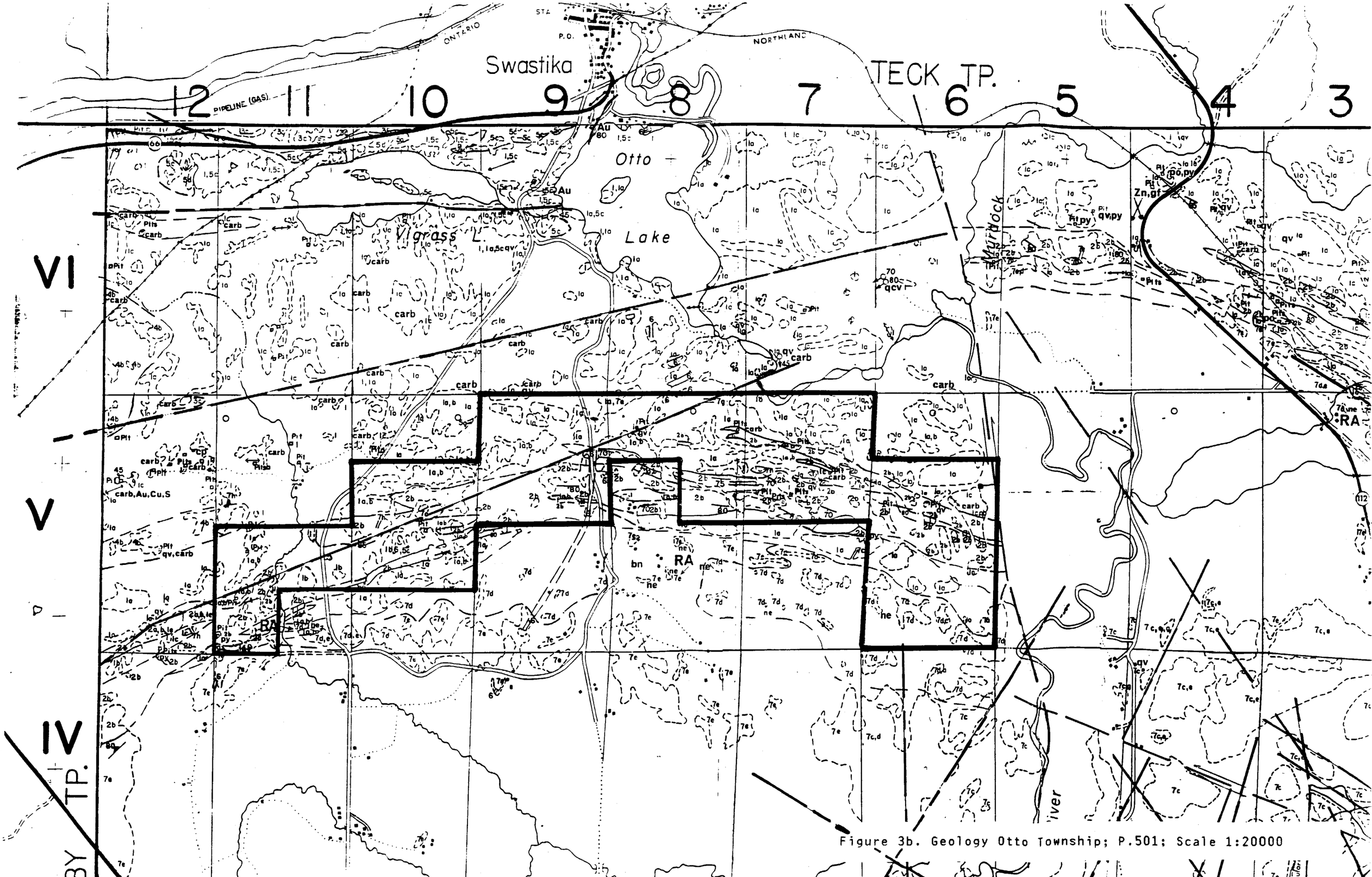


Figure 3a. Geology Eby Township: P.448: Scale 1:20000


Swastika
TECK TP.
12
11
10
9
8
7
6
5
4
3
VI
V
IV
PIPELINE (GAS)
ONTARIO
NORTHLAND
Otto
Lake
Vigrass L.
Murdock
RA
Au
Zn,gf
qv,py
carb
Pits
qcv
bn
ne
he
7d
7e
7c,e
7c,d
7a
7c
Figure 3b. Geology Otto Township; P.501; Scale 1:20000

Map P. 448 - Ontario Department of Mines
Preliminary Geological Maps of Eby & Otto Townships.
Scale 1:20000 (from 1 inch = 1/2 mile)

LEGEND

PRECAMBRIAN

PROTEROZOIC

8 MAFIC INTRUSIVE ROCKS

HURONIAN

COBALT GROUP

7 GOWGANDA FORMATION

ARCHEAN

MAFIC INTRUSIVE ROCKS

6 Diabase

FELSIC INTRUSIVE ROCKS (ALGOMAN)

5c Syenite and Syenite Porphyry

5d Mafic syenite, lamprophyre, and hybrid syenite and country rocks

MAFIC AND ULTRAMAFIC INTRUSIVE ROCKS (HAILEYBURIAN, EARLY ALGOMAN, AND SOME KEEWATIN)

4b Gabbro and Diorite

METASEDIMENTS (TIMISKAMING OR KEEWATIN)

3

FELSIC VOLCANIC ROCKS (KEEWATIN)

2a Rhyolite and dacite

MAFIC VOLCANIC ROCKS (KEEWATIN)

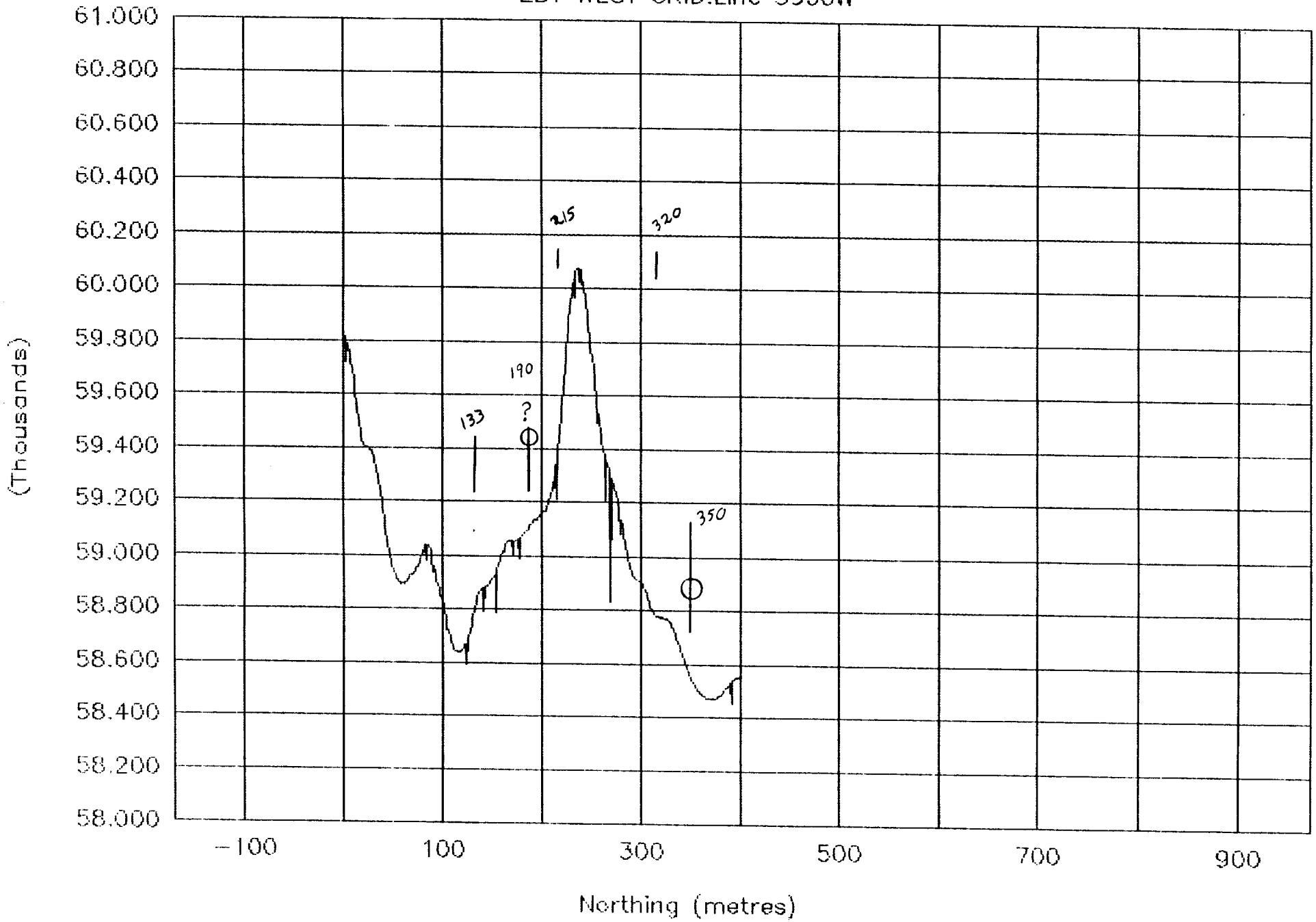
1a Basalt and andesite (pillowed and massive)

1b Mafic agglomerate and tuff

Figure 3c. General Geology; Legend
Eby Twp. Map P.448 & Otto Twp Map P.501

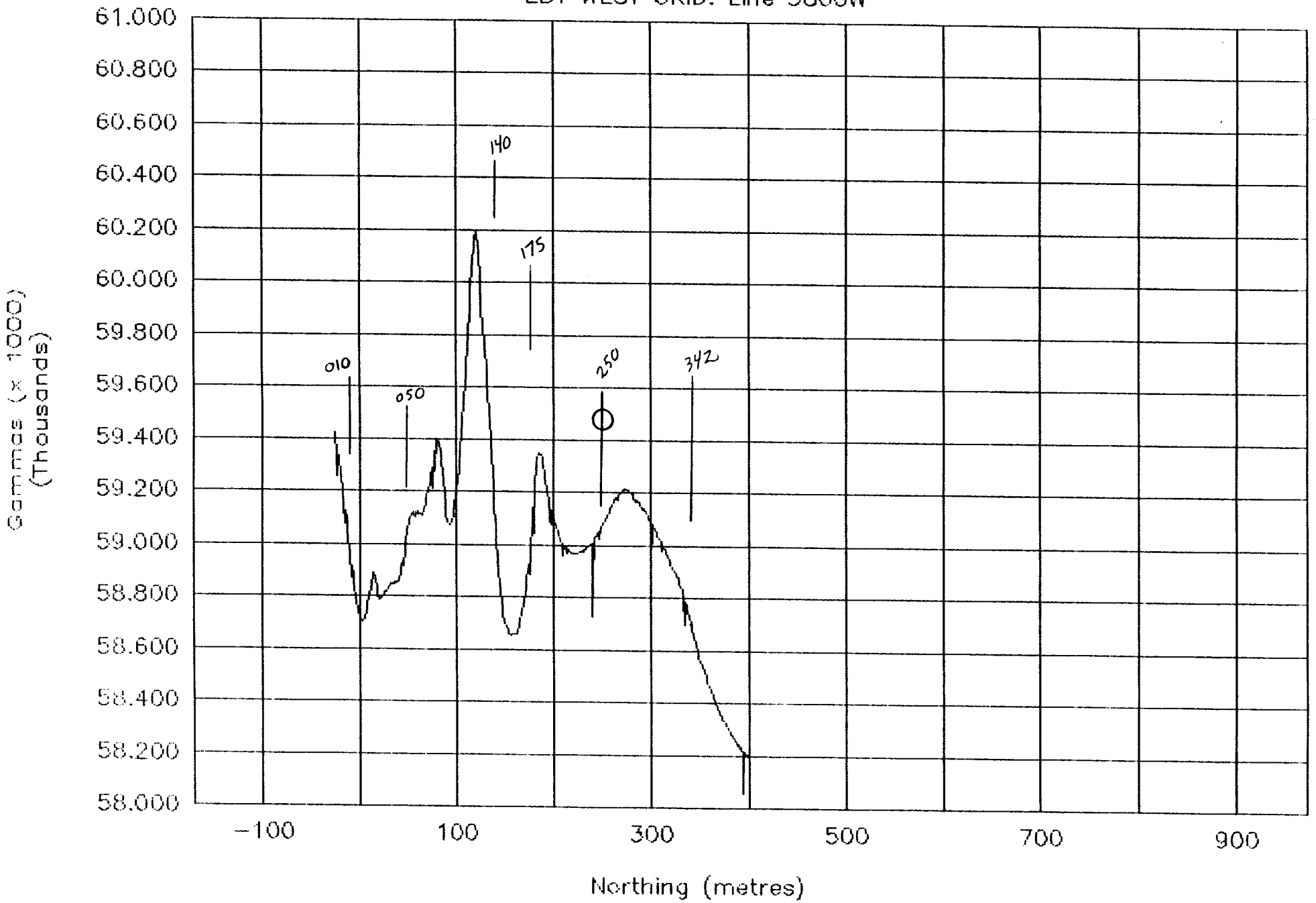
Total Field Strength

EBY WEST GRID:Line 3900W



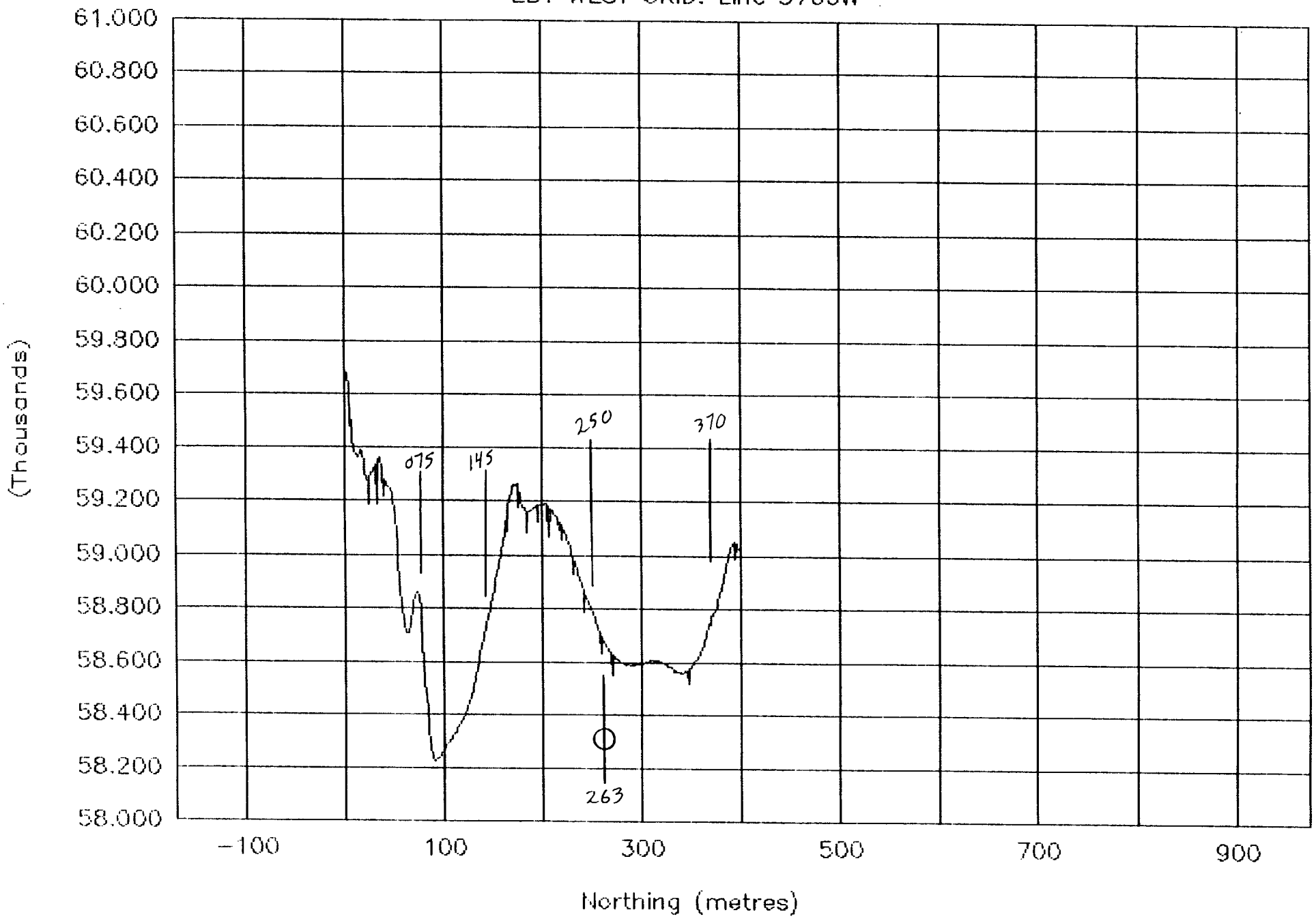
Total Field Strength

EBY WEST GRID: Line 3800W



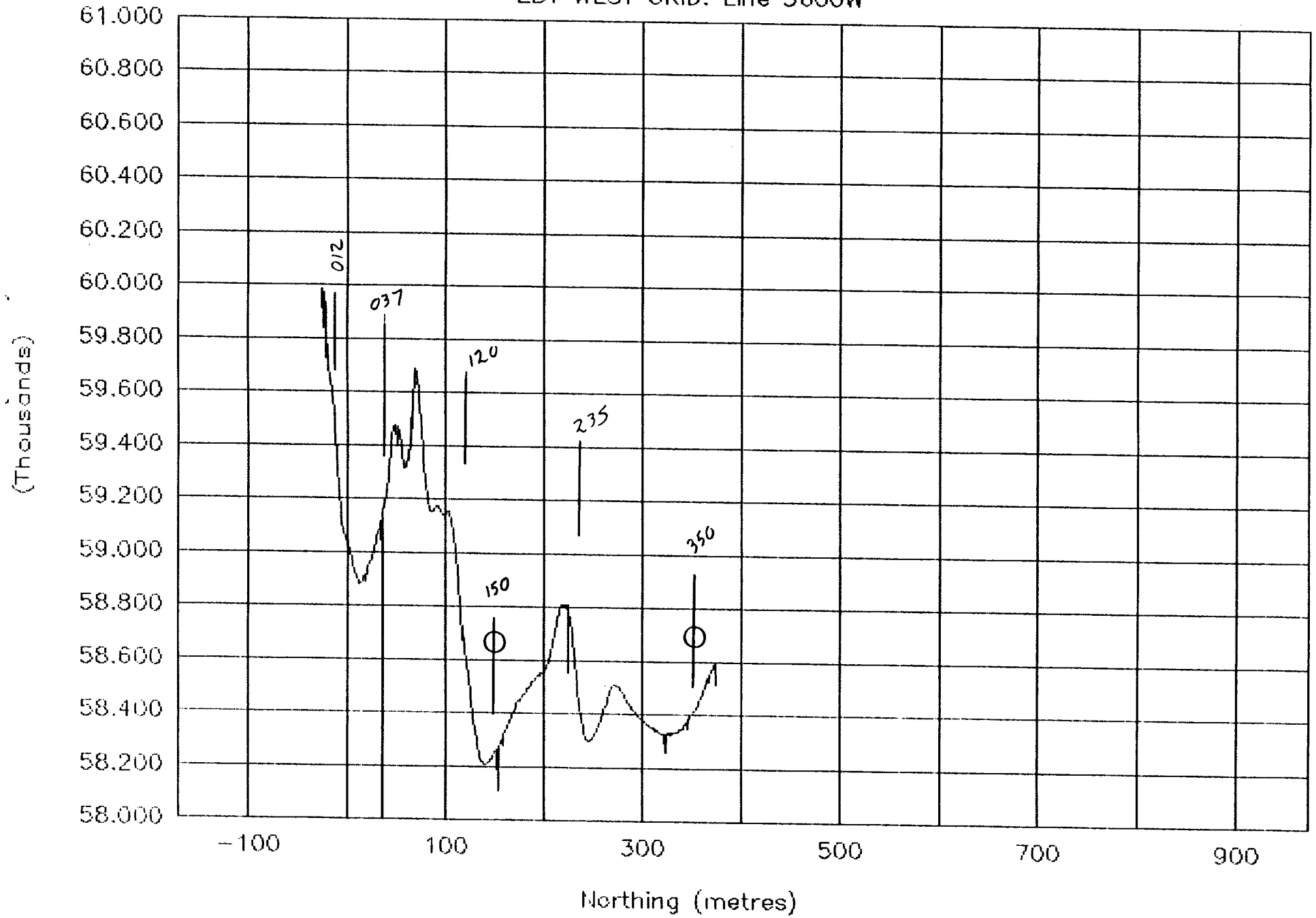
Total Field Strength

EBY WEST GRID: Line 3700W



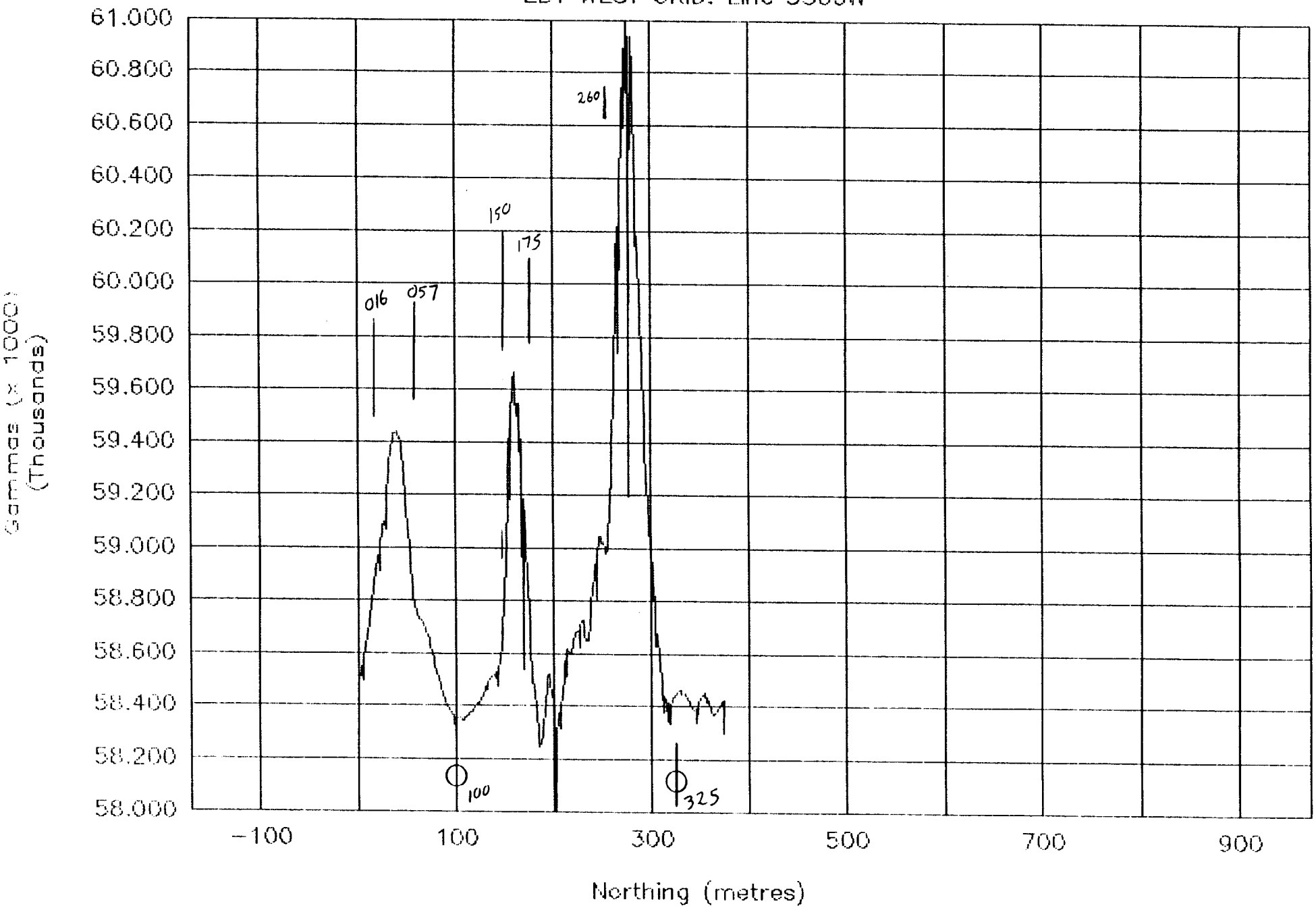
Total Field Strength

EBY WEST GRID: Line 3600W



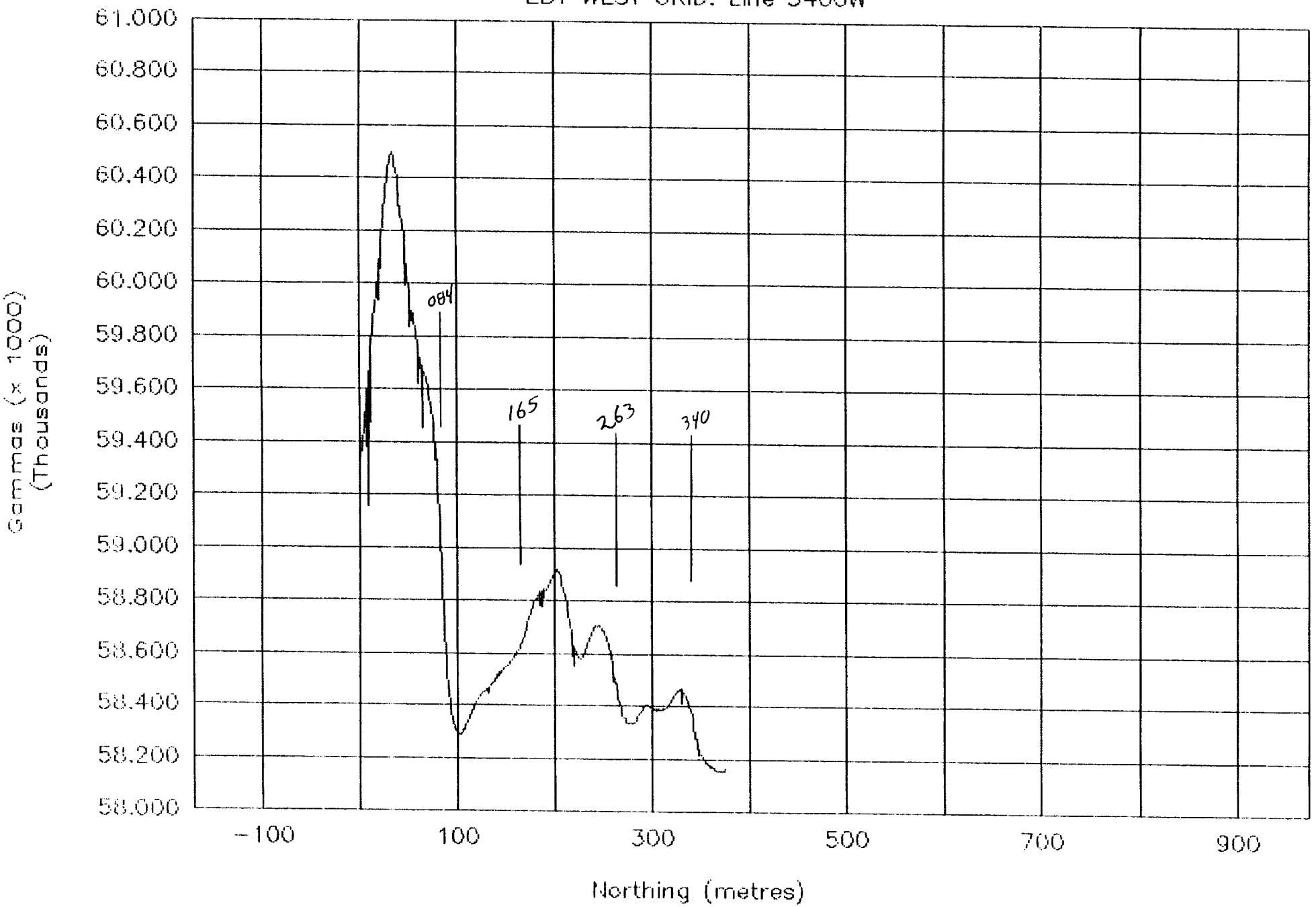
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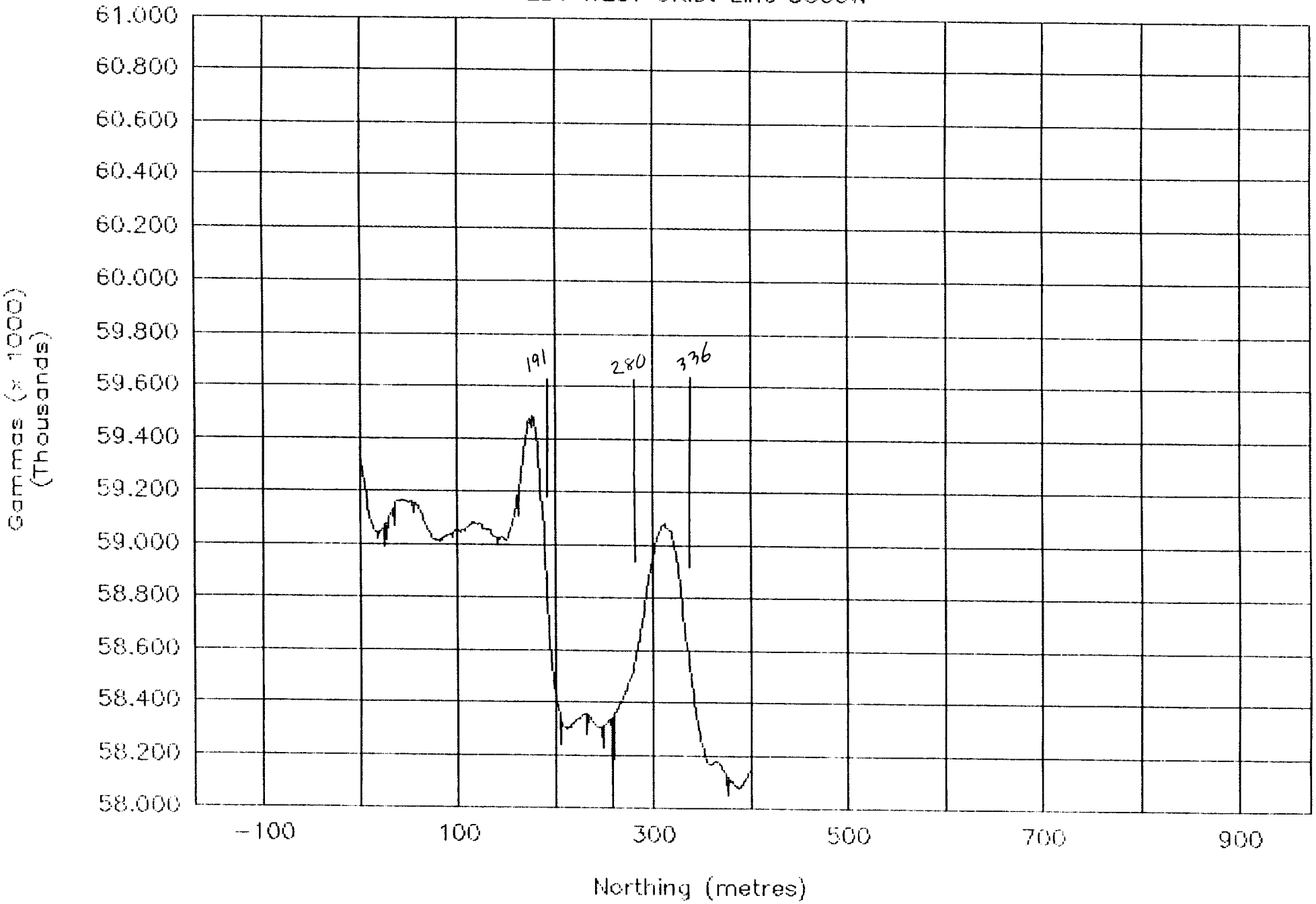
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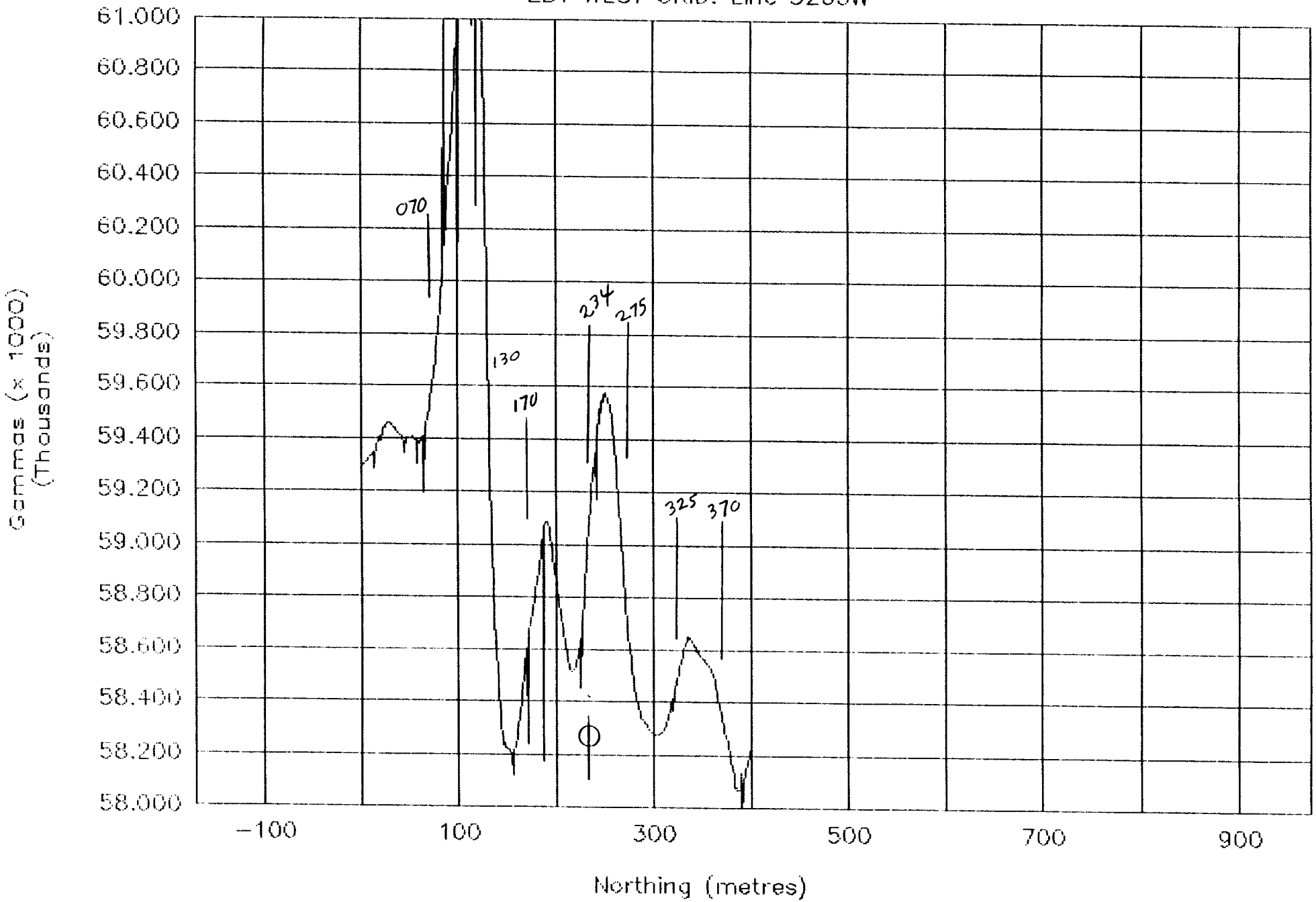
Total Field Strength

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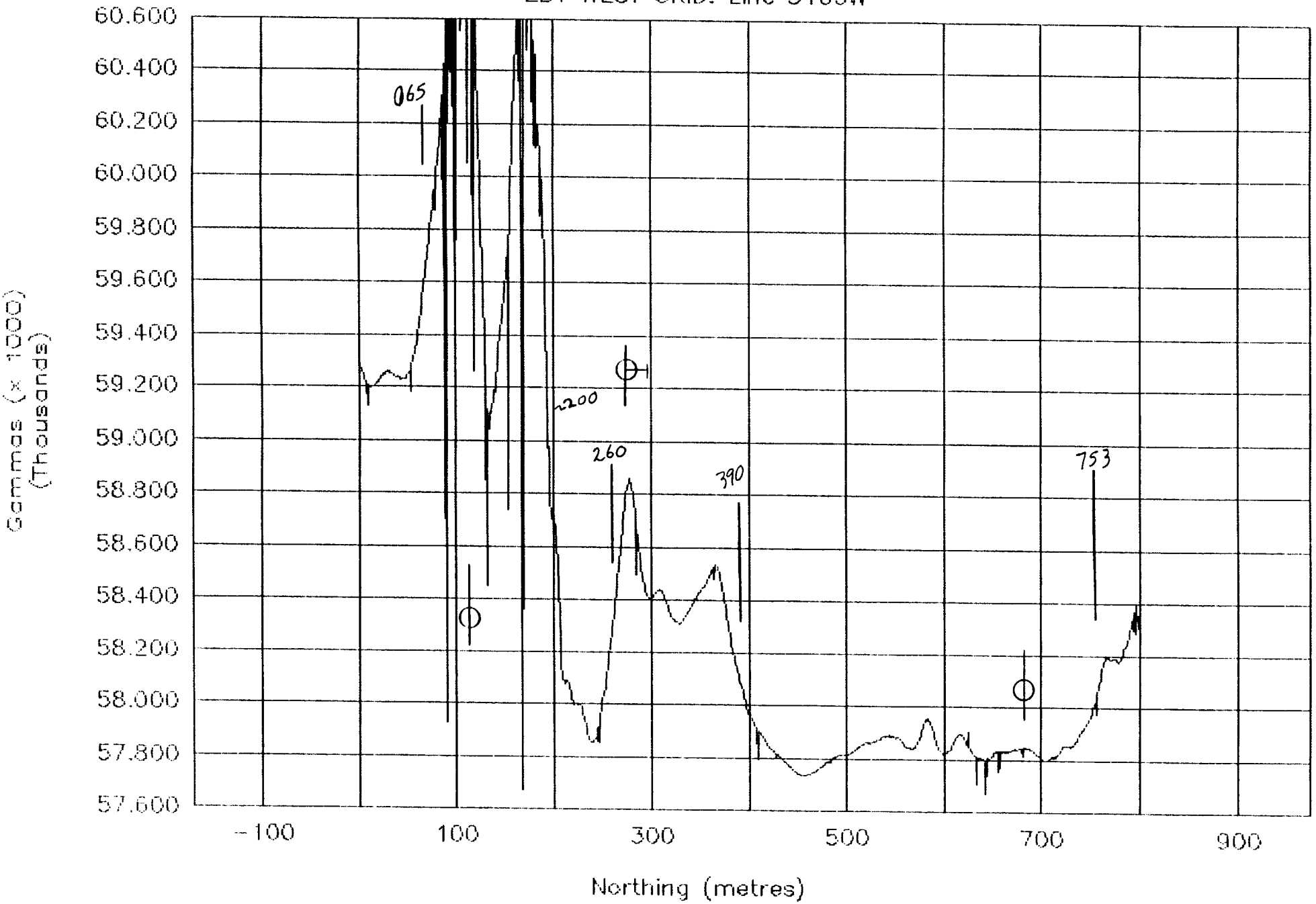
Total Field Strength

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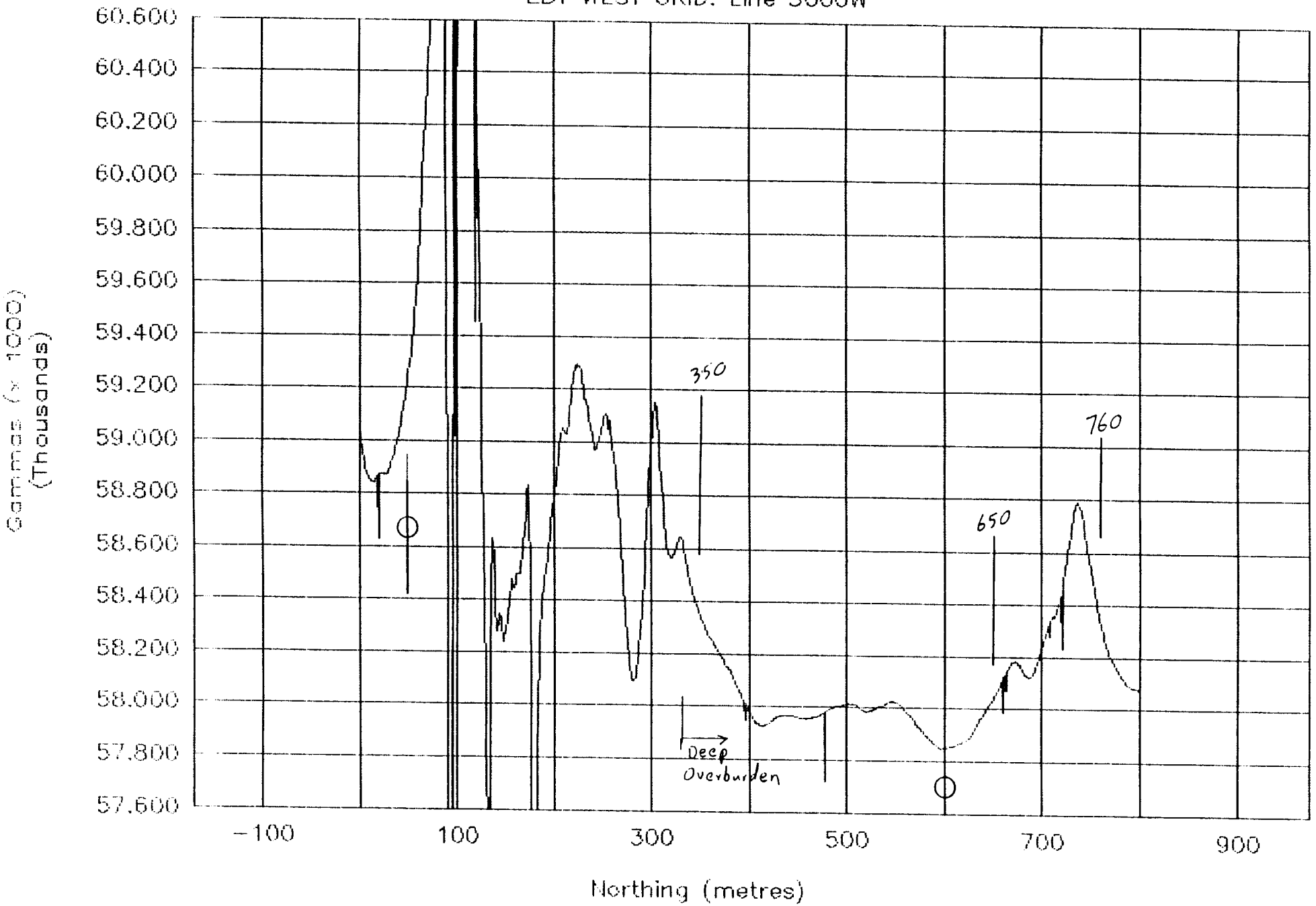
Total Field Strength

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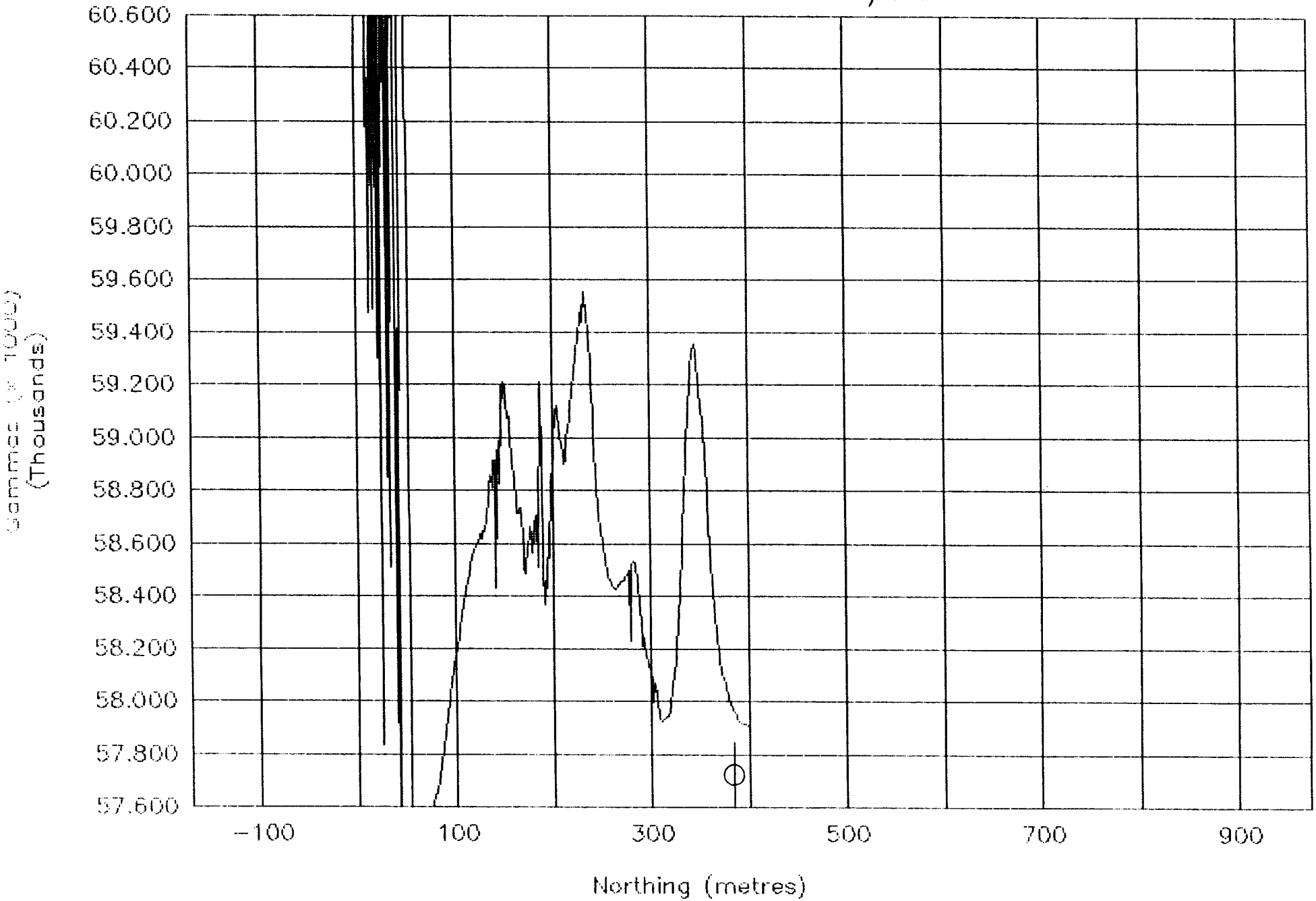
Total Field Strength

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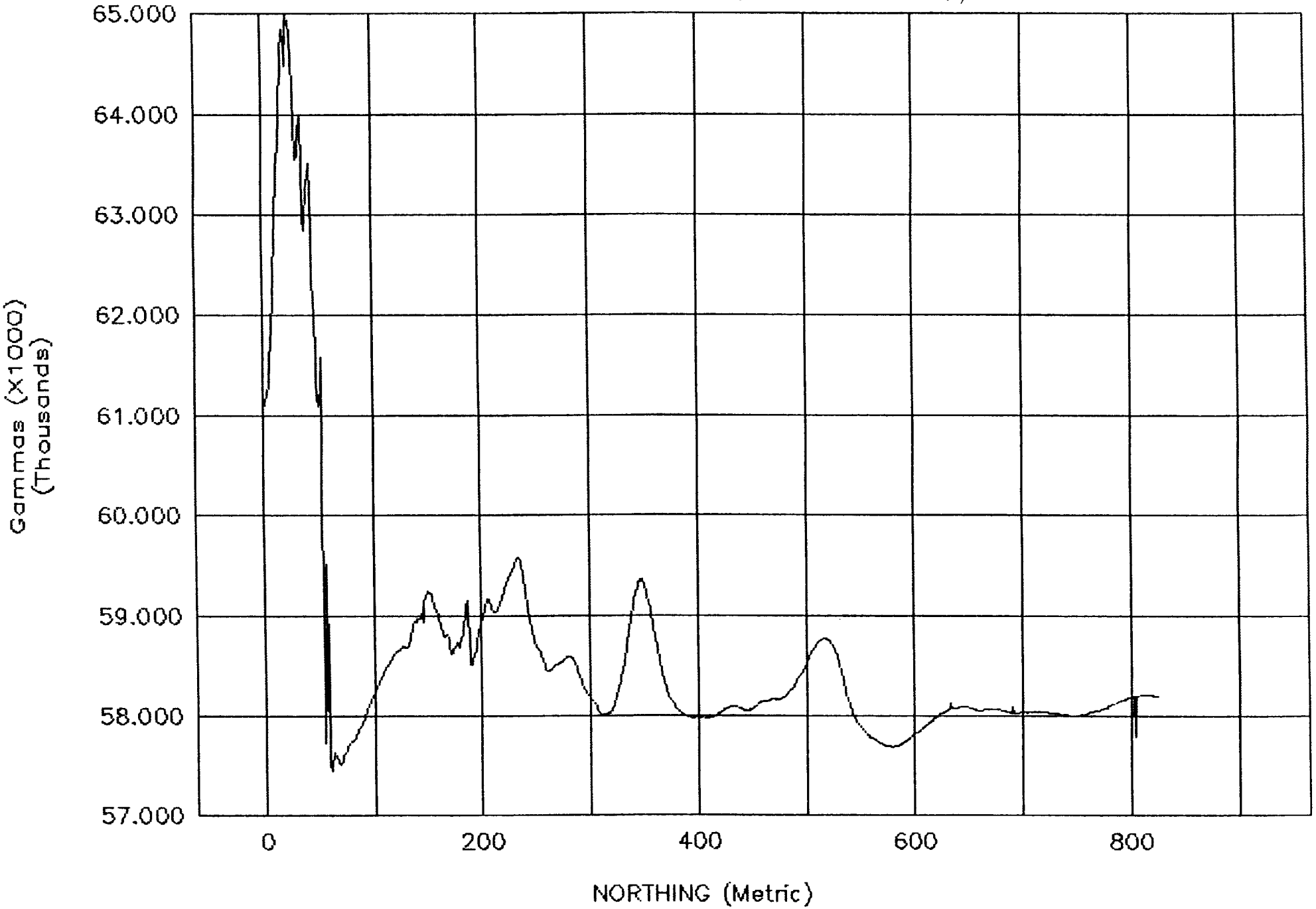
Total Field Strength

EBY WEST GRID: Line 2900W, 1996



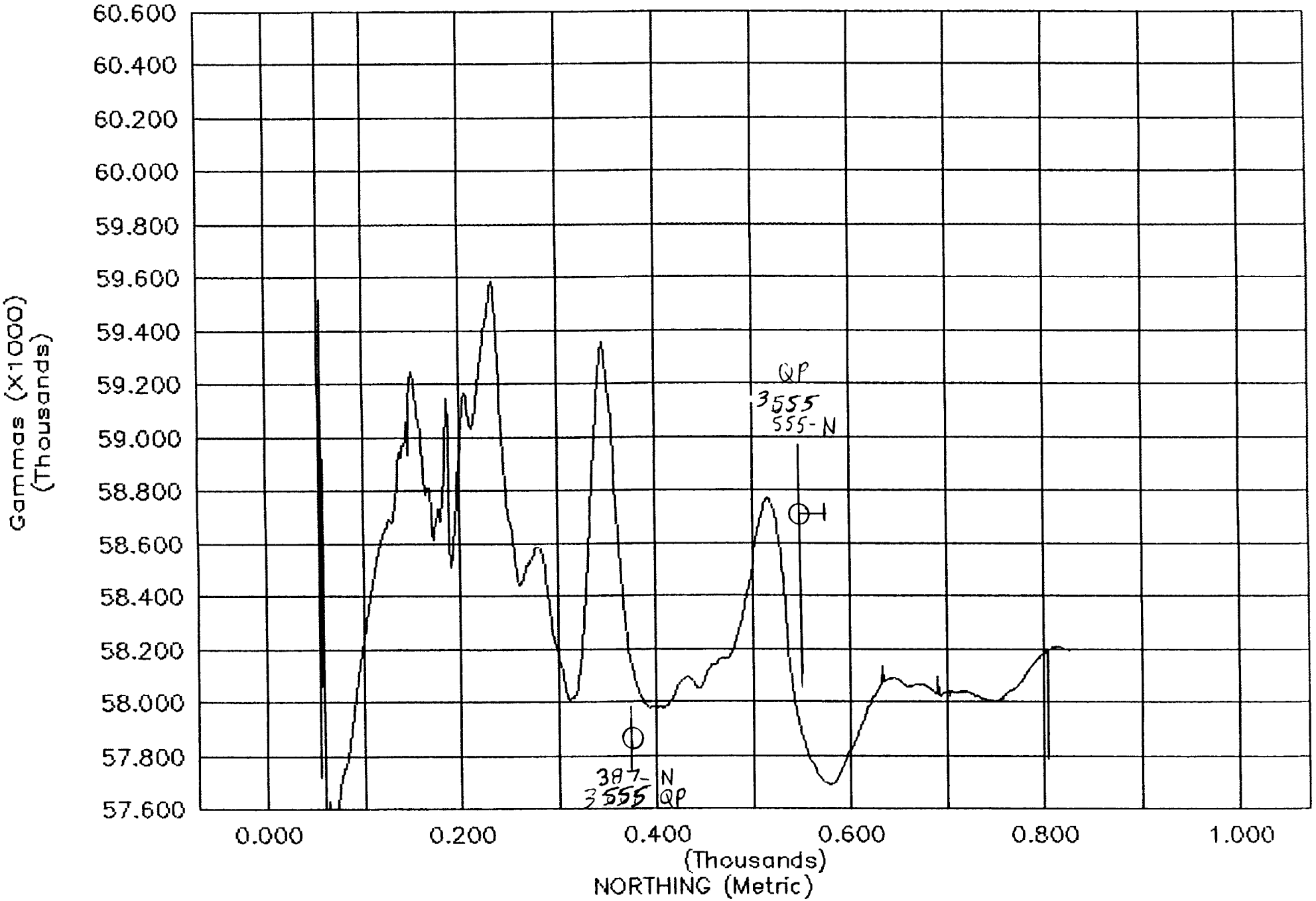
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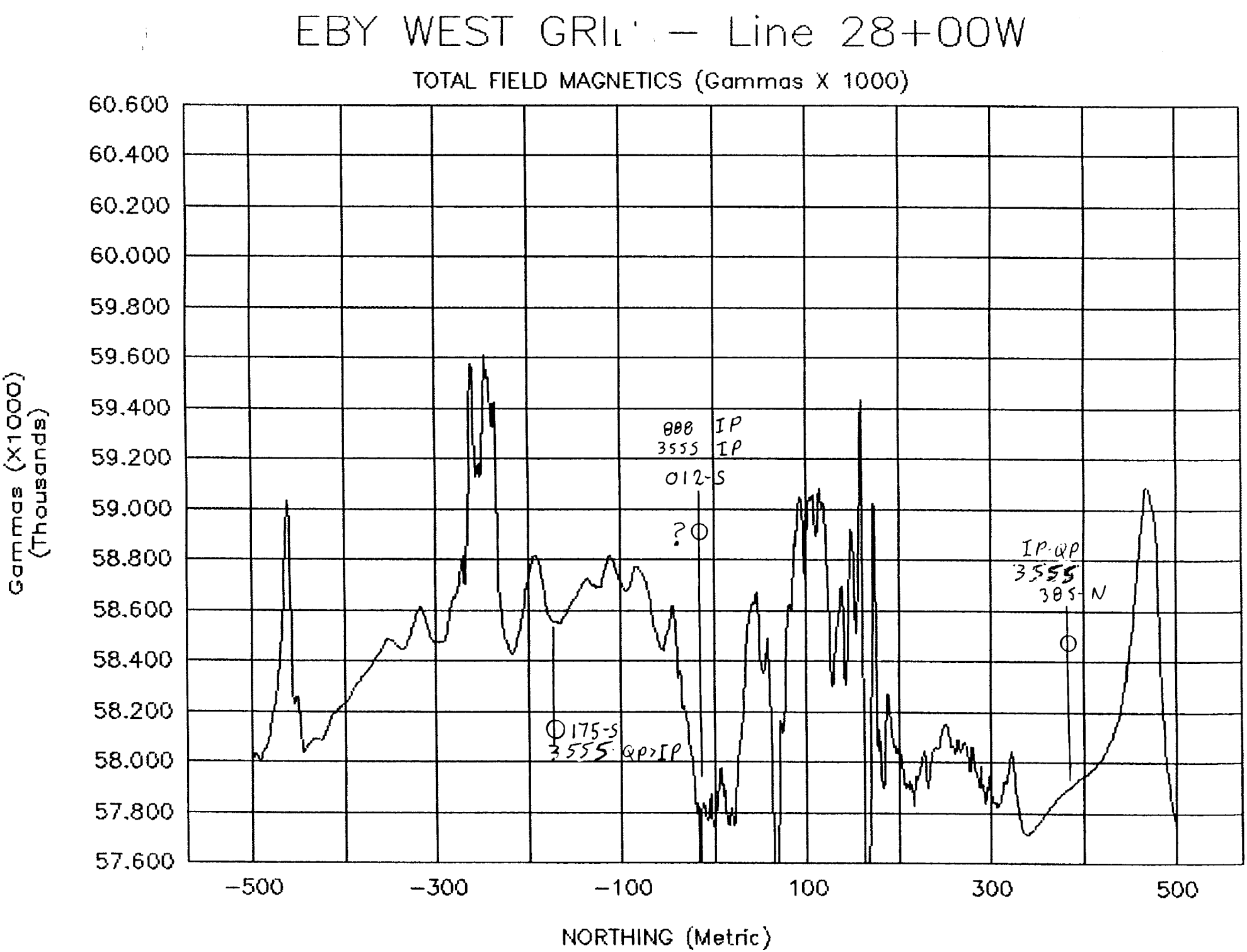
TOTAL FIELD MAGNETICS (Gammas X 1000), 1995



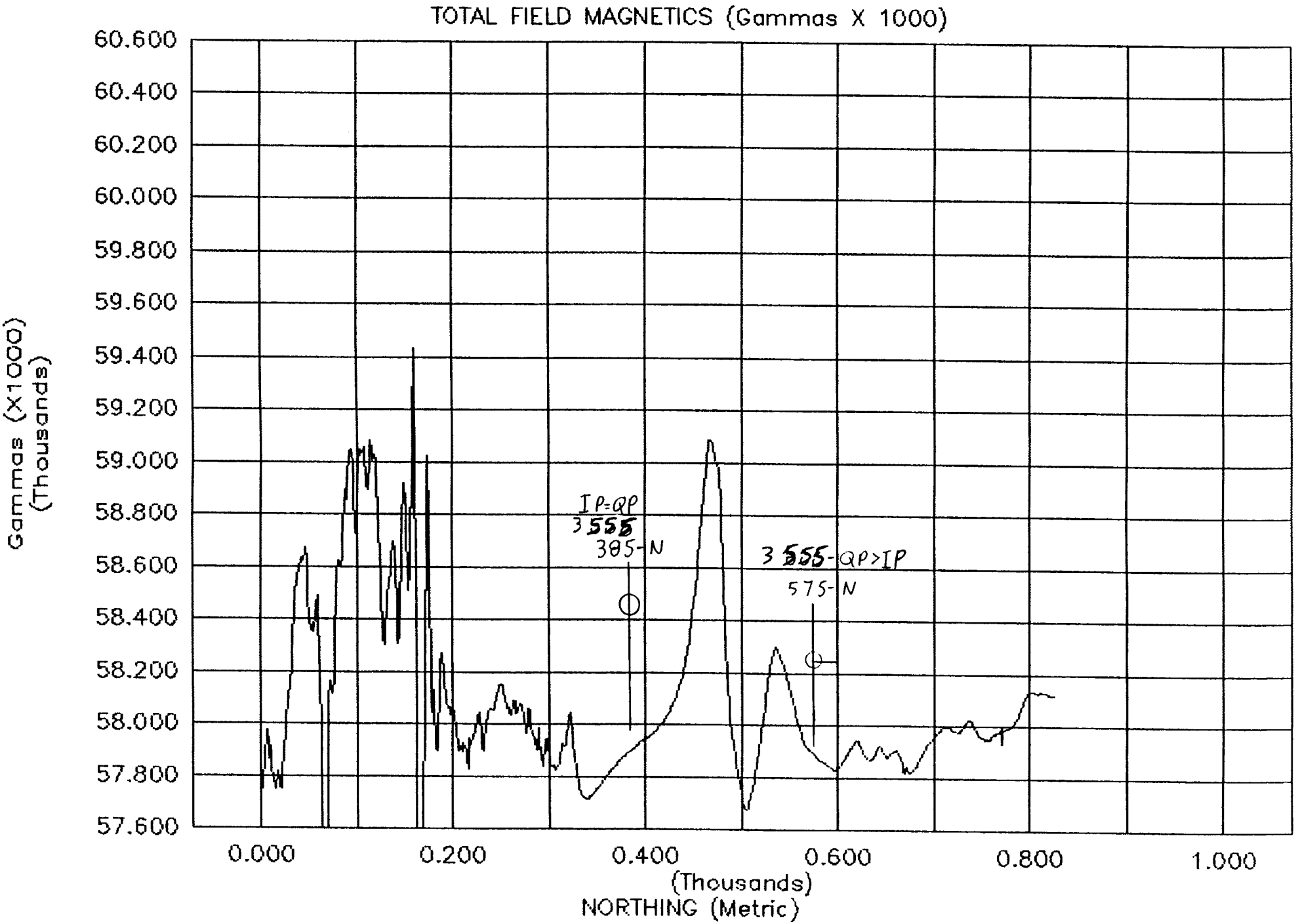
EBY WEST GRI. – Line 29+00W

TOTAL FIELD MAGNETICS (Gammas X 1000) 1995

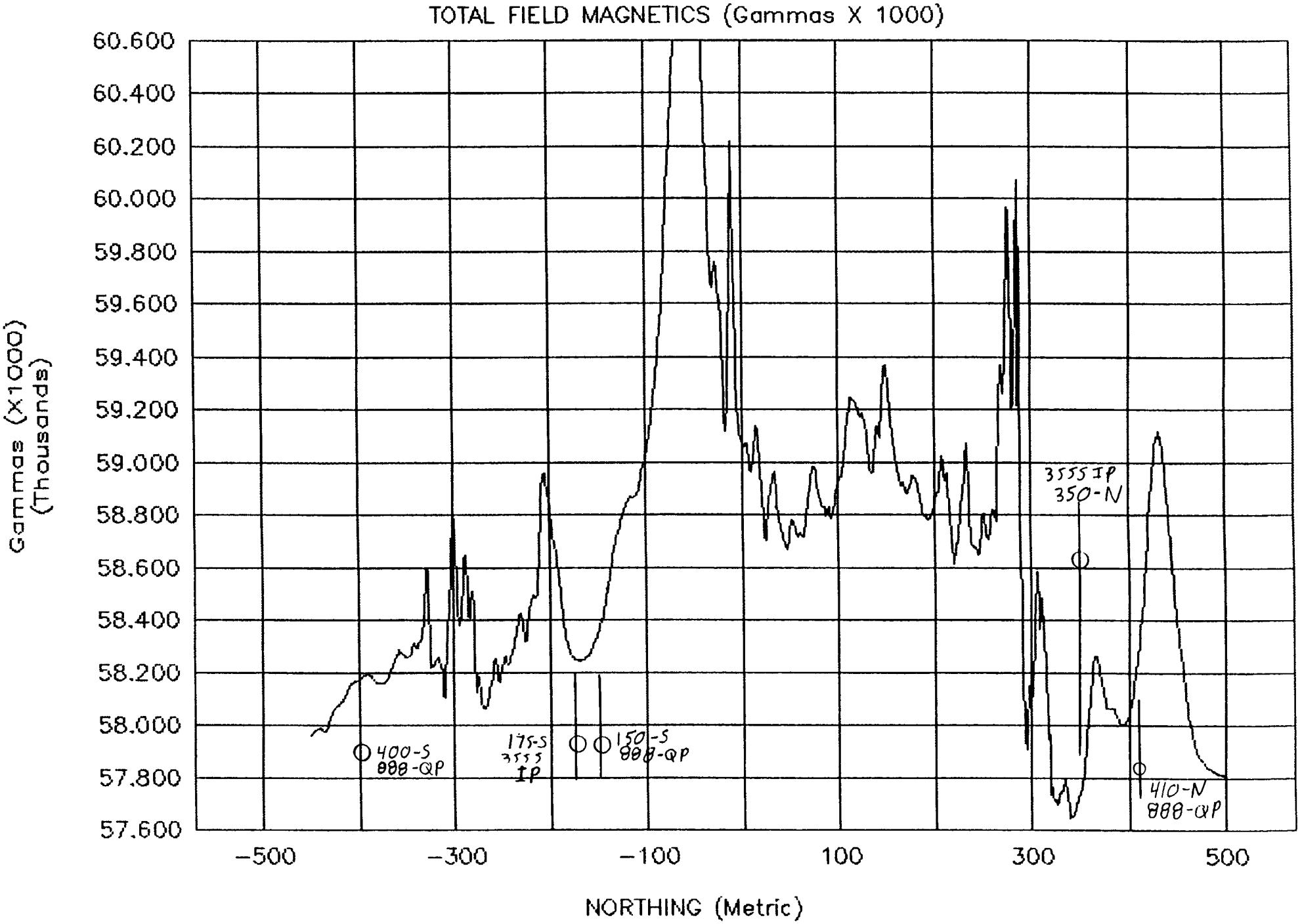



EBY WEST GRID — Line 28+00W
TOTAL FIELD MAGNETICS (Gammas X 1000)
60.600
60.400
60.200
60.000
59.800
59.600
59.400
59.200
59.000
58.800
58.600
58.400
58.200
58.000
57.800
57.600
Gammas (X1000)
(Thousands)
000 IP
3555 IP
012-S
?
175-S
3555 QP>IP
IP-QP
3555
385-N
-500
-300
-100
100
300
500
NORTHING (Metric)

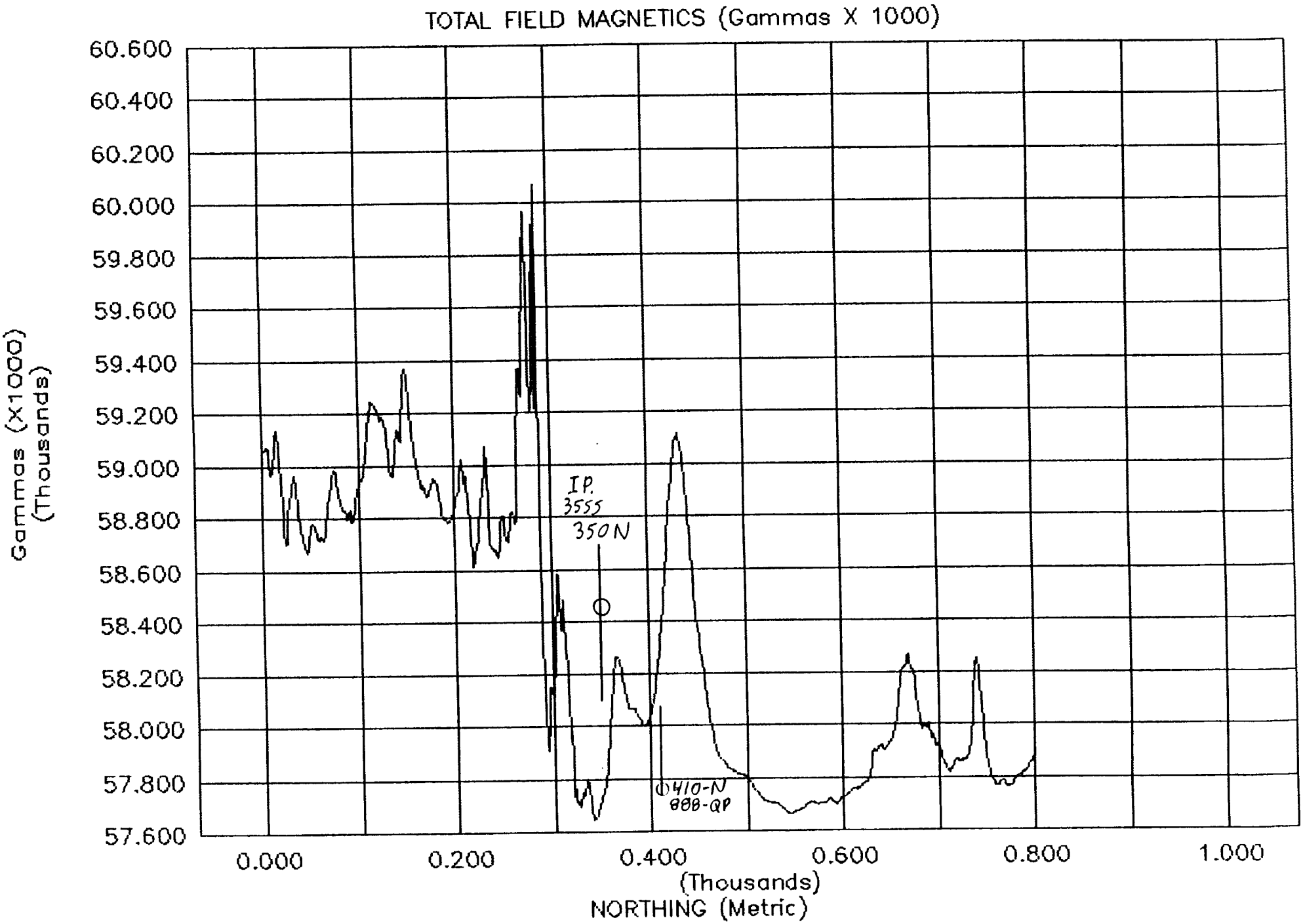
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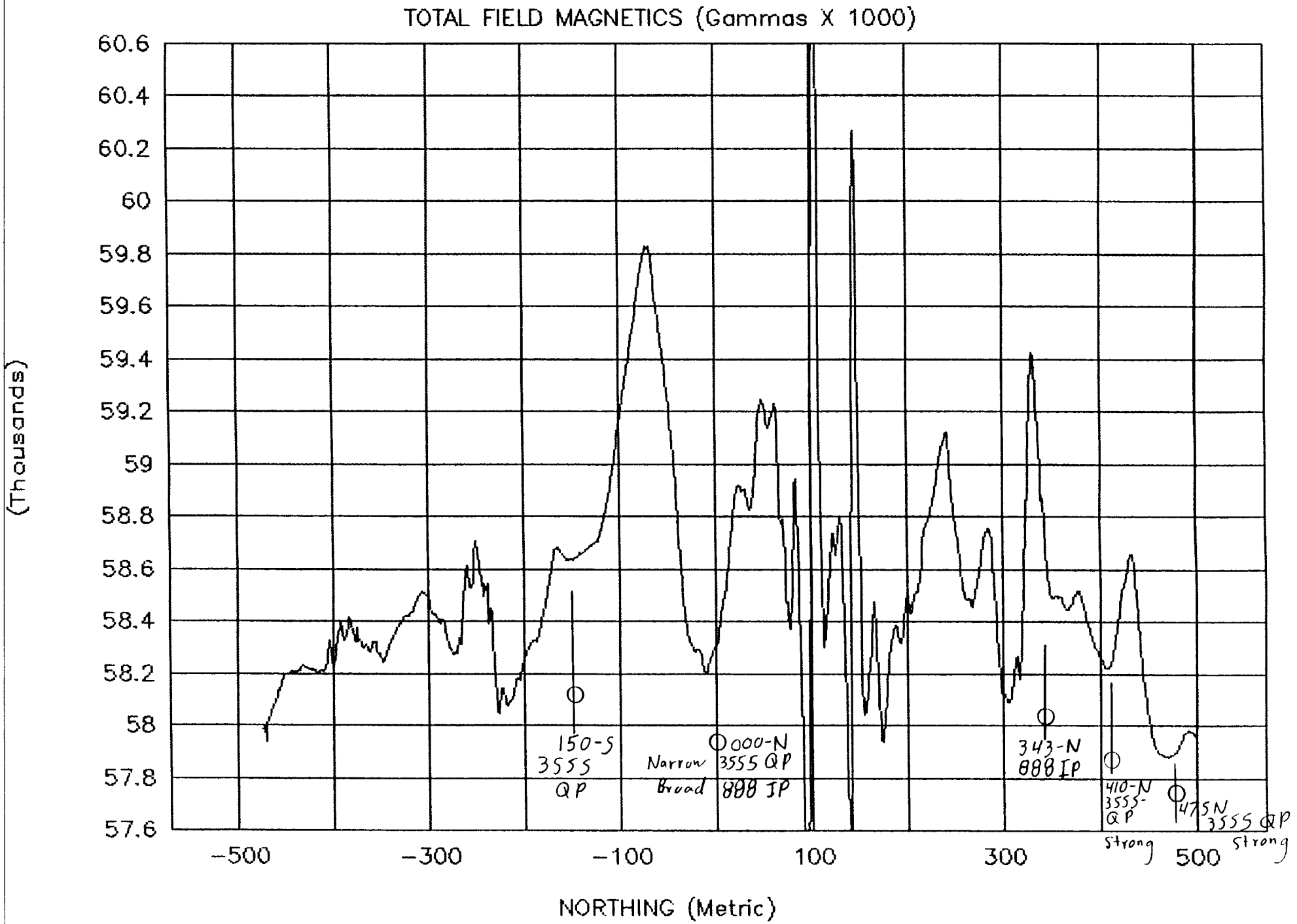
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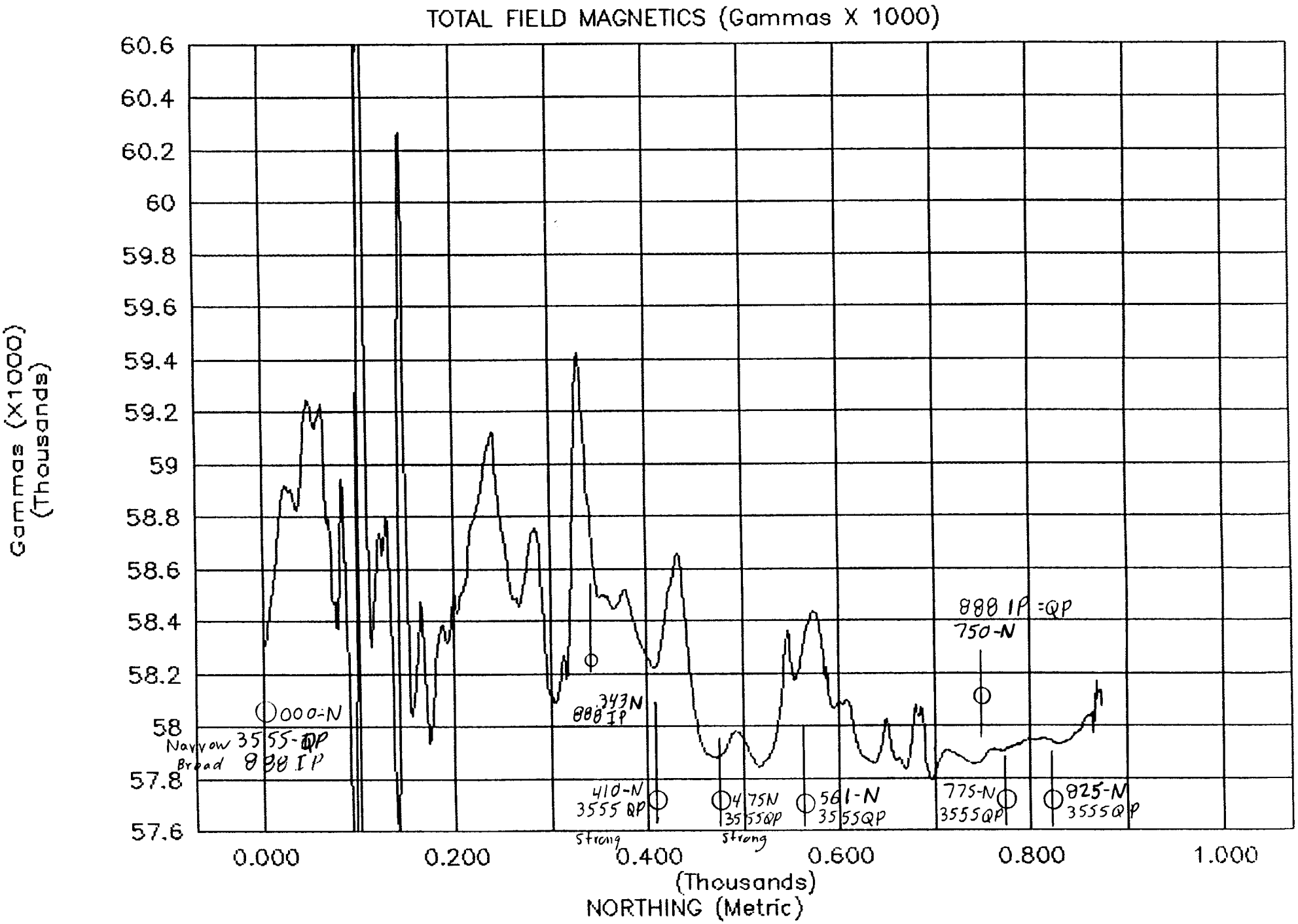
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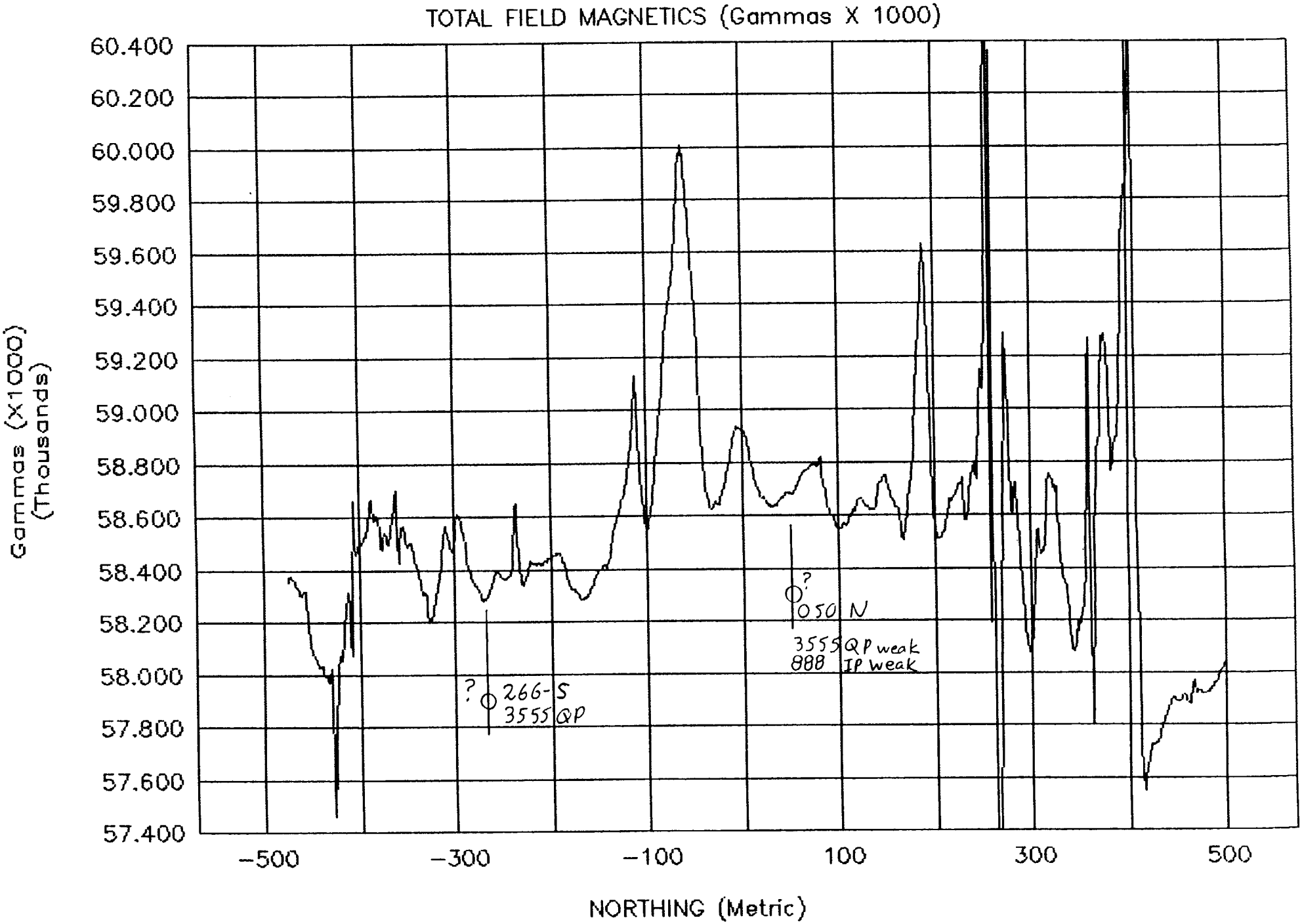
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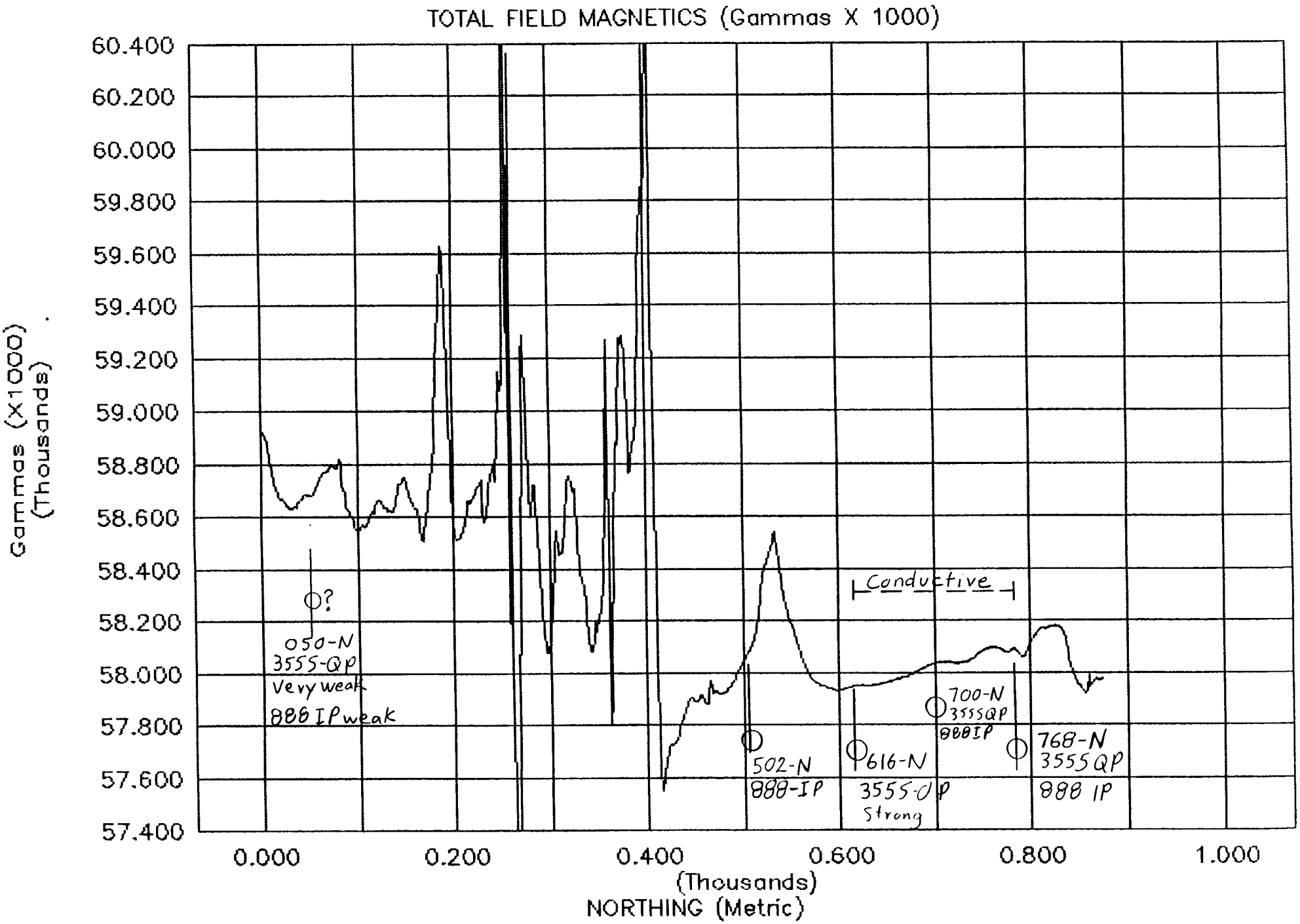
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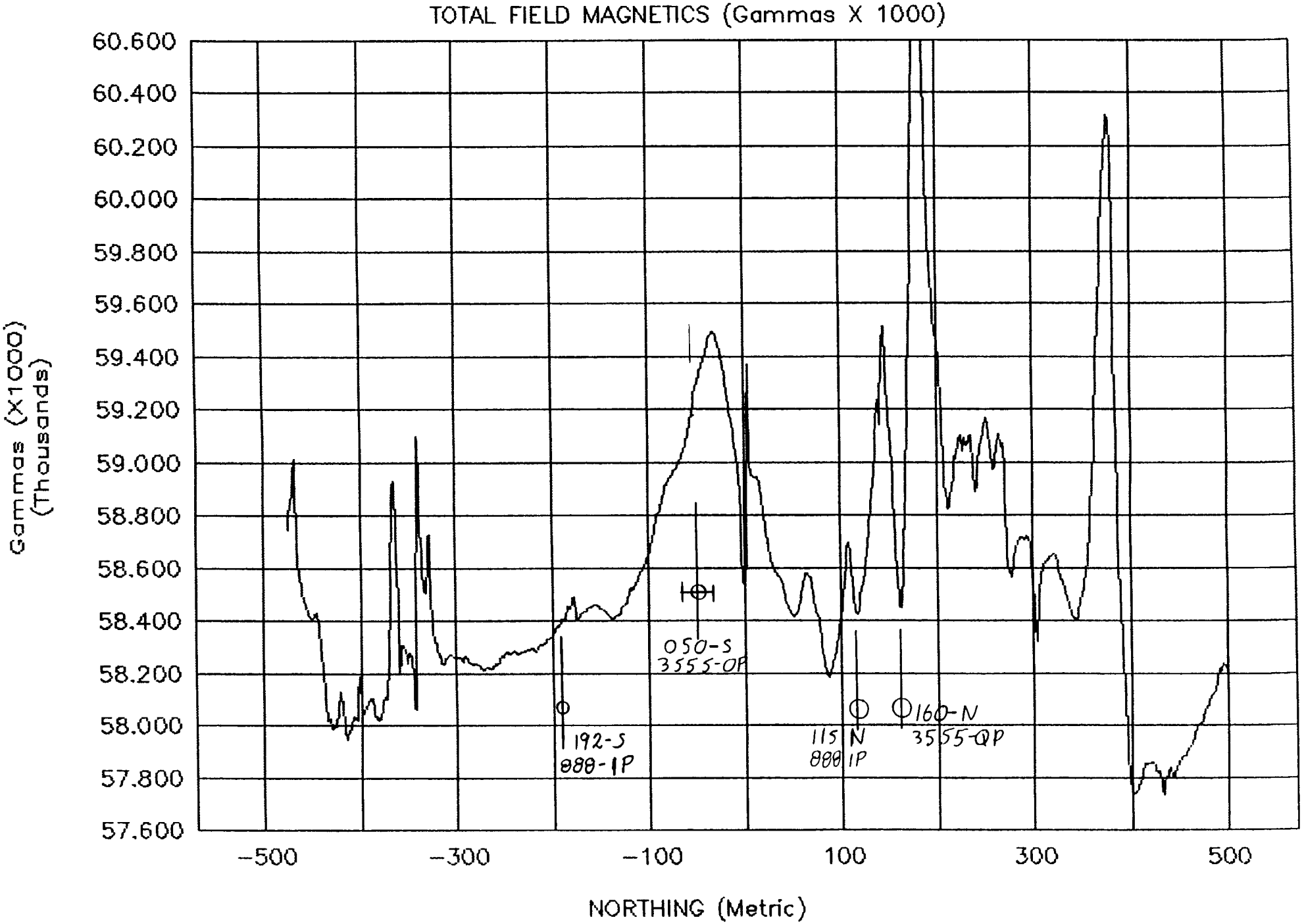
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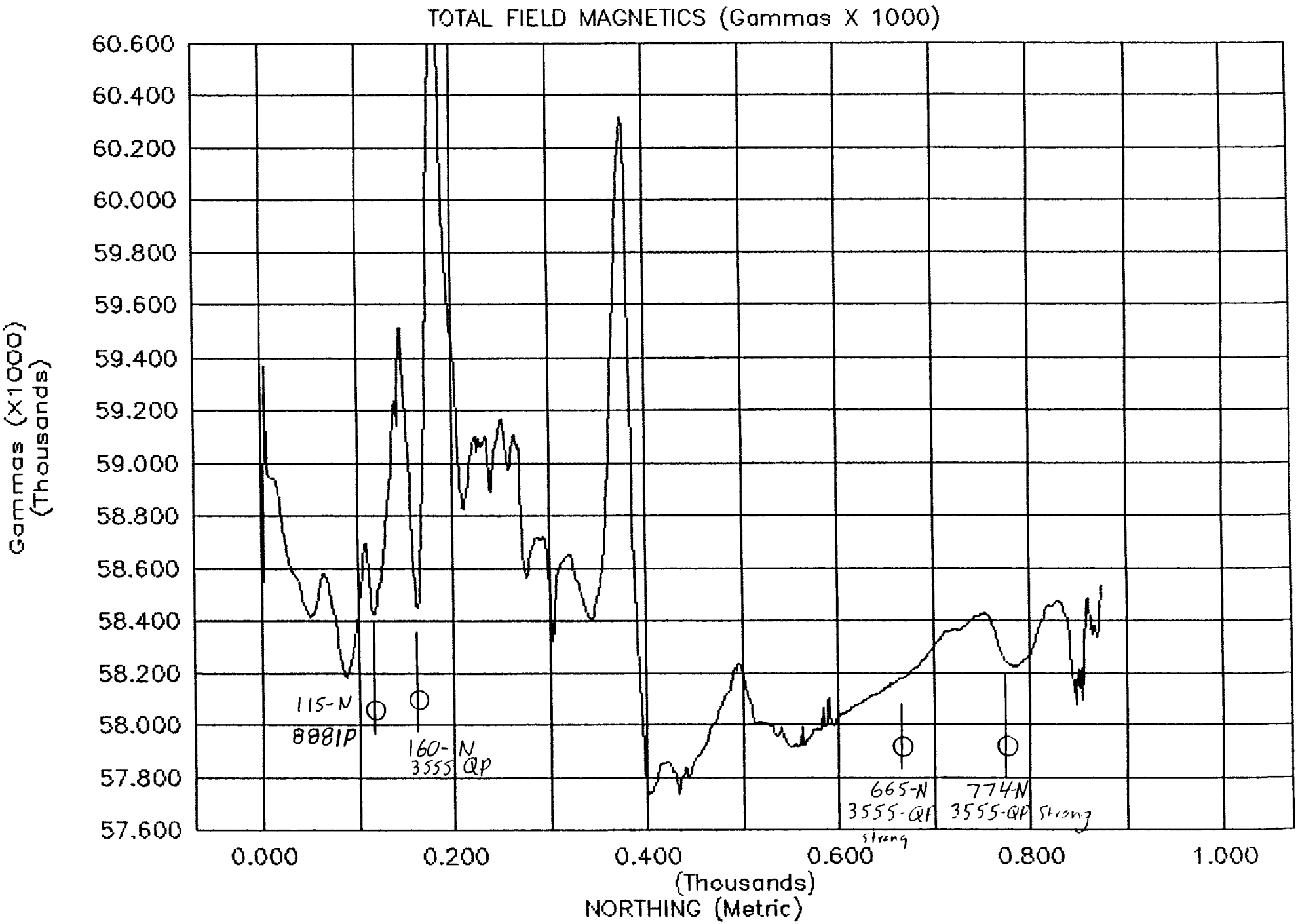
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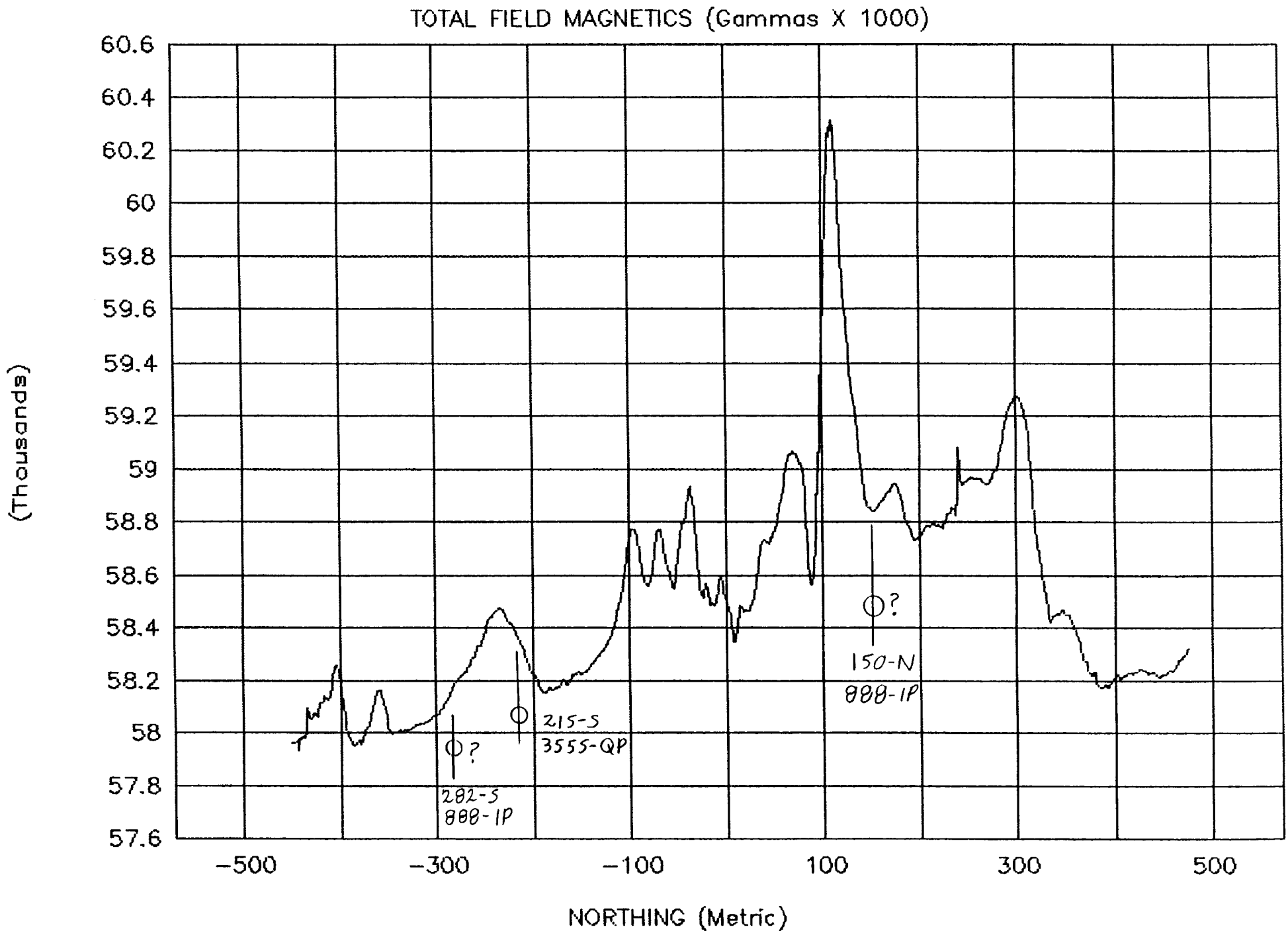
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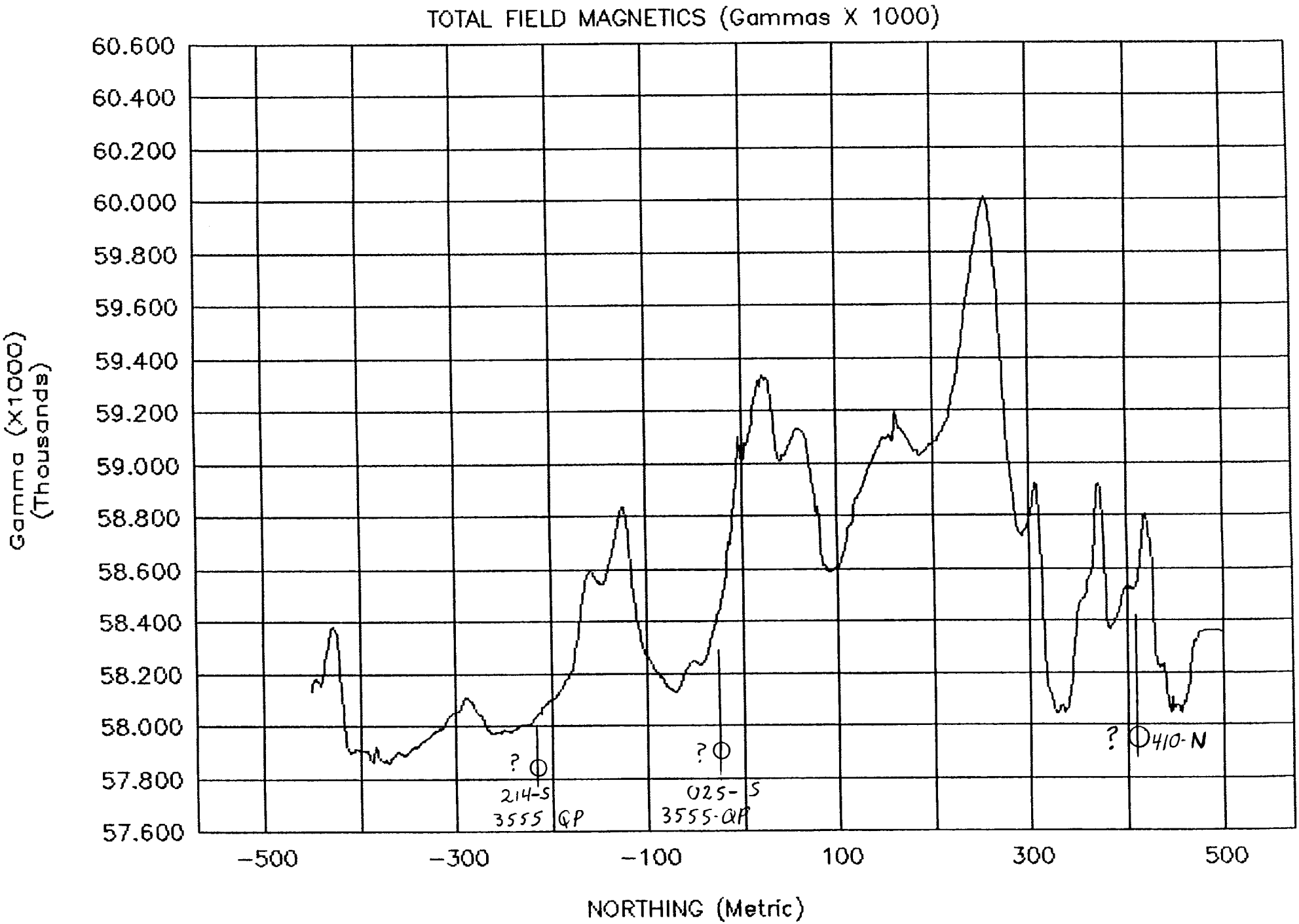
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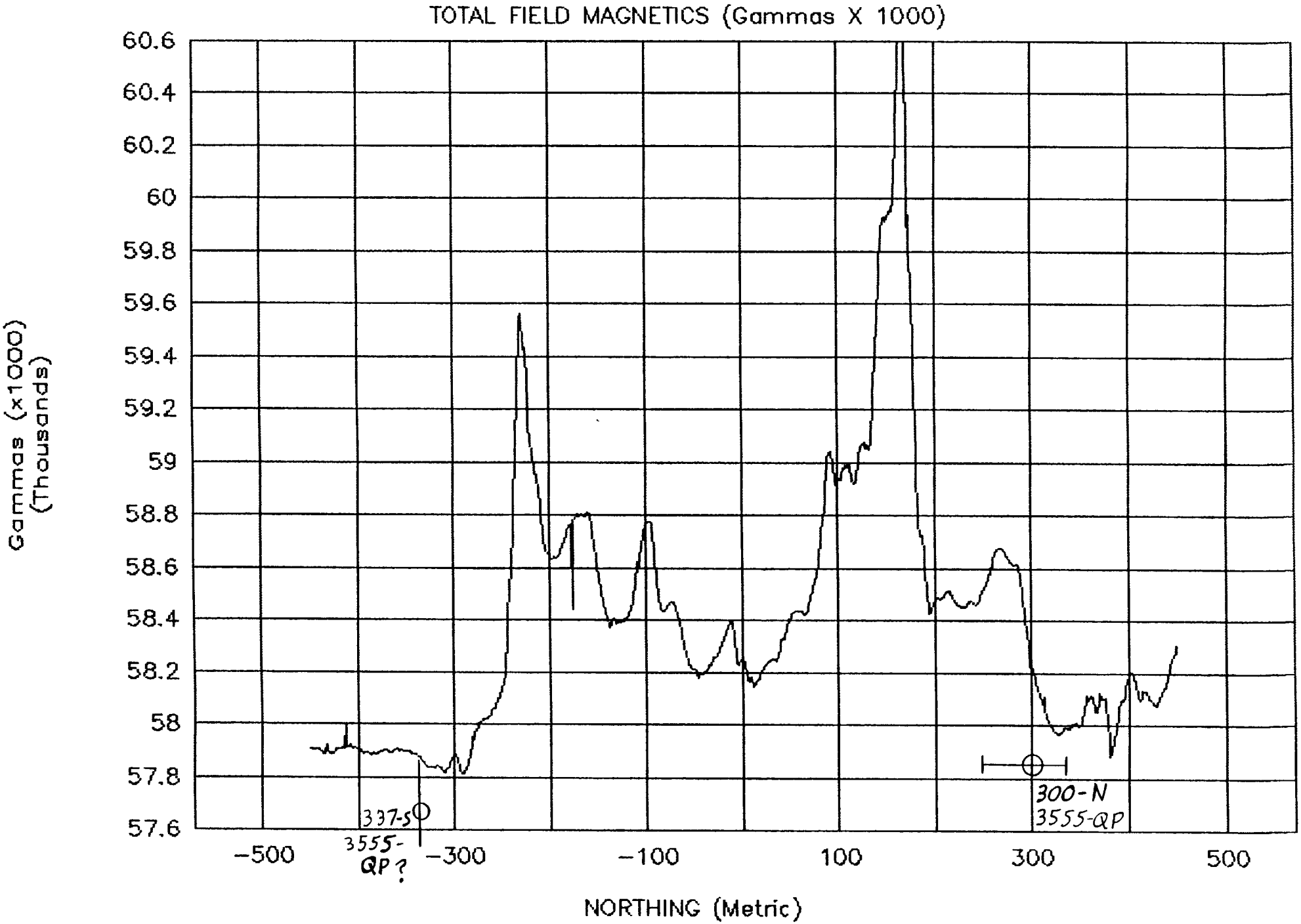
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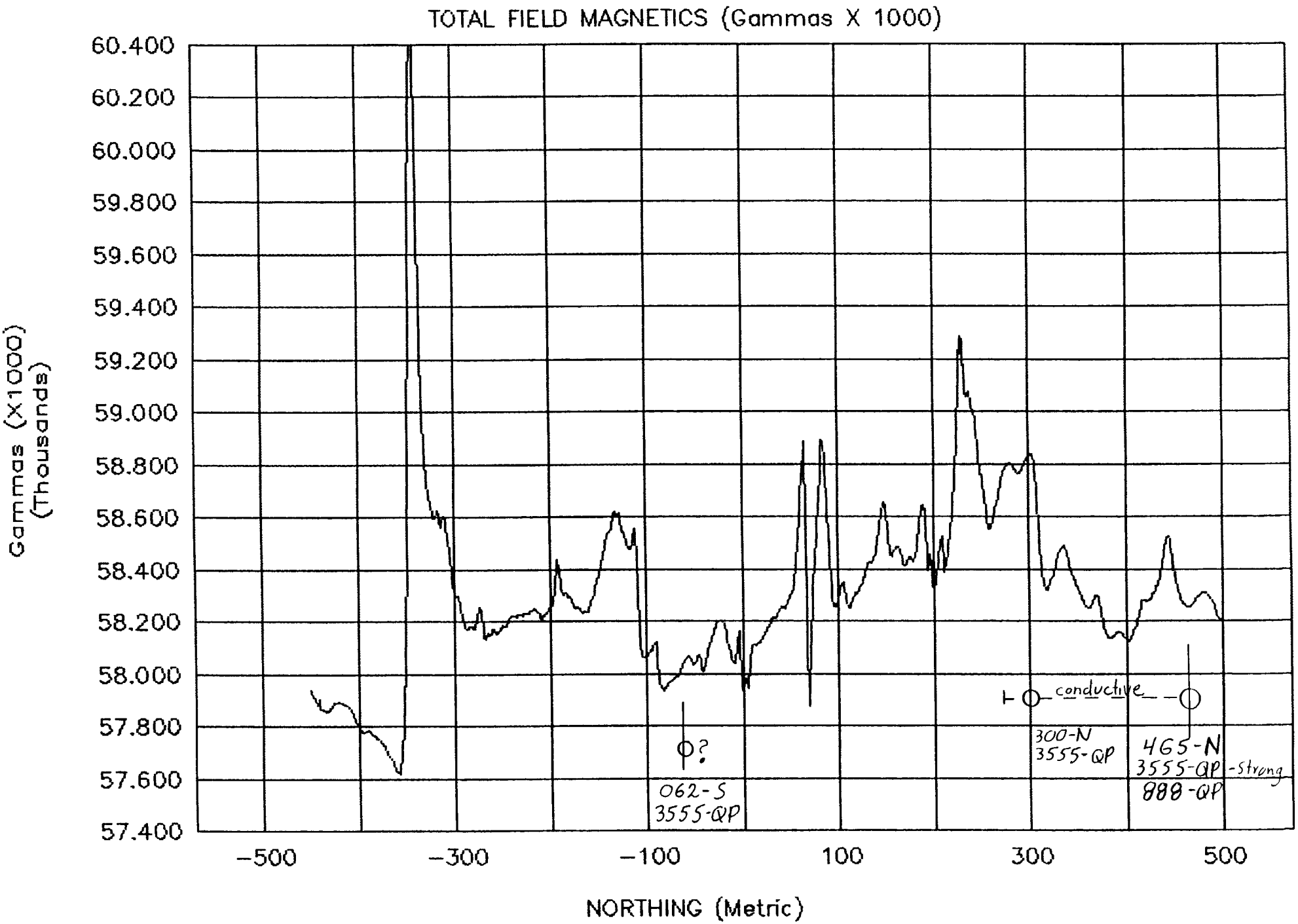
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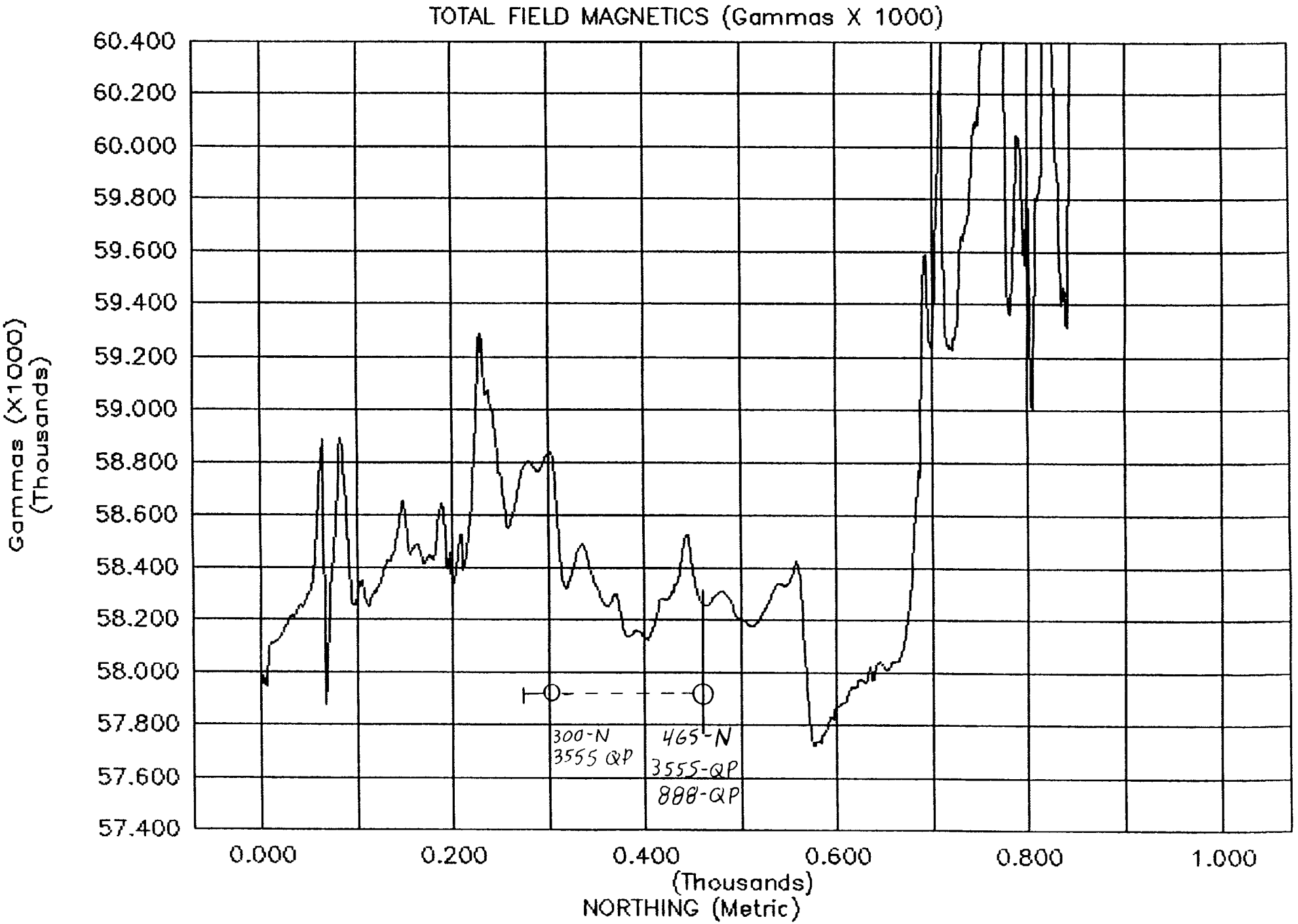
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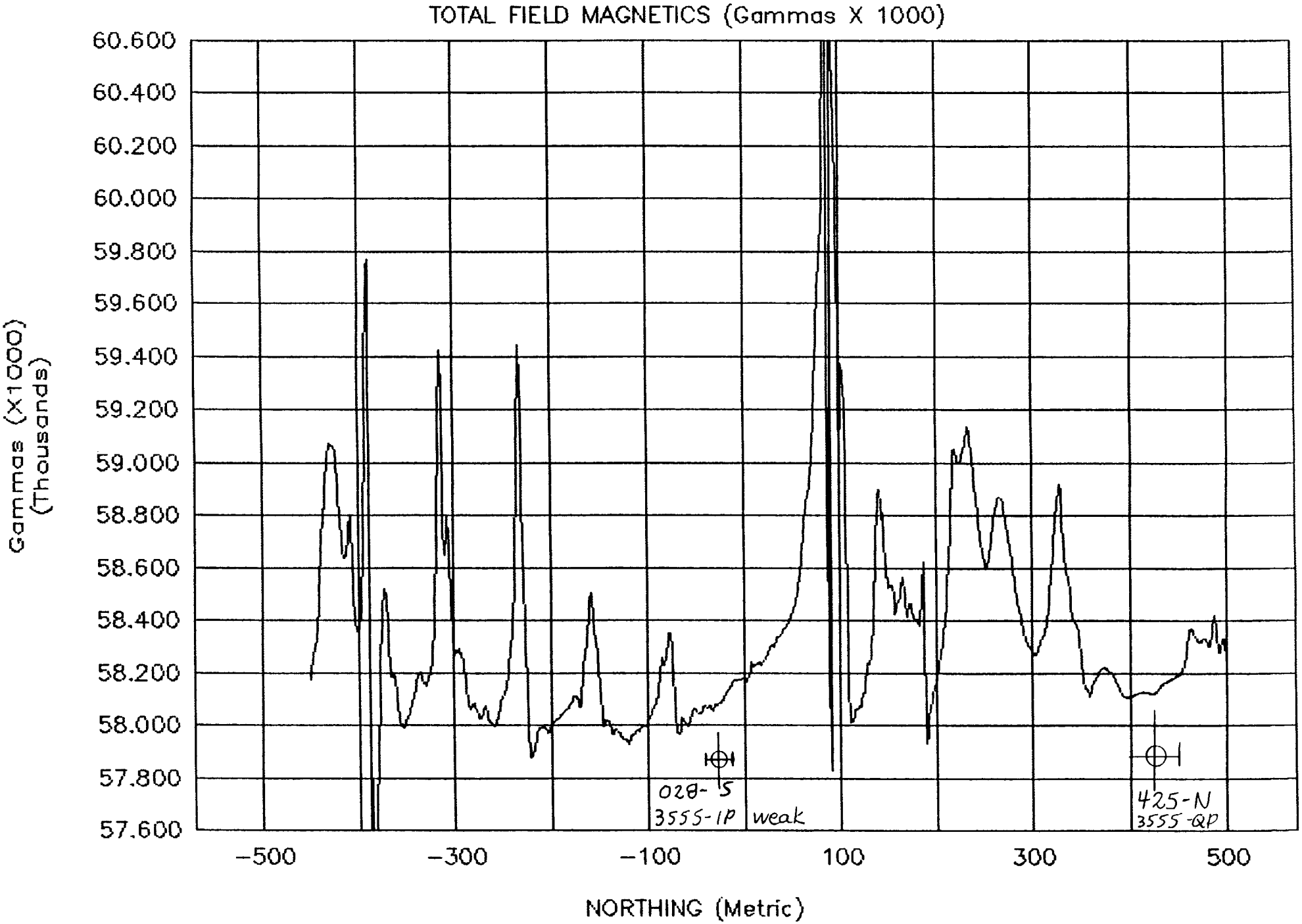
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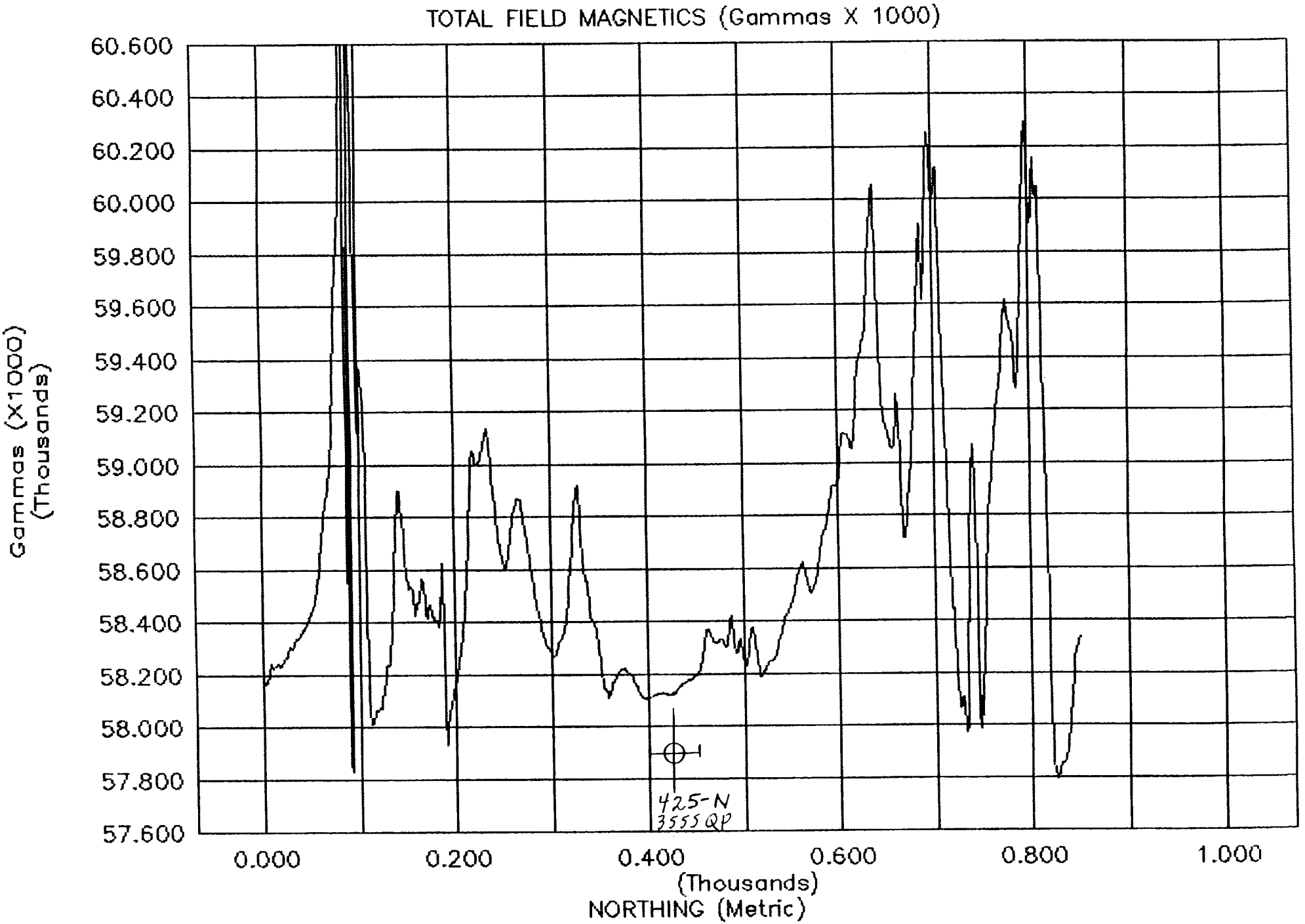
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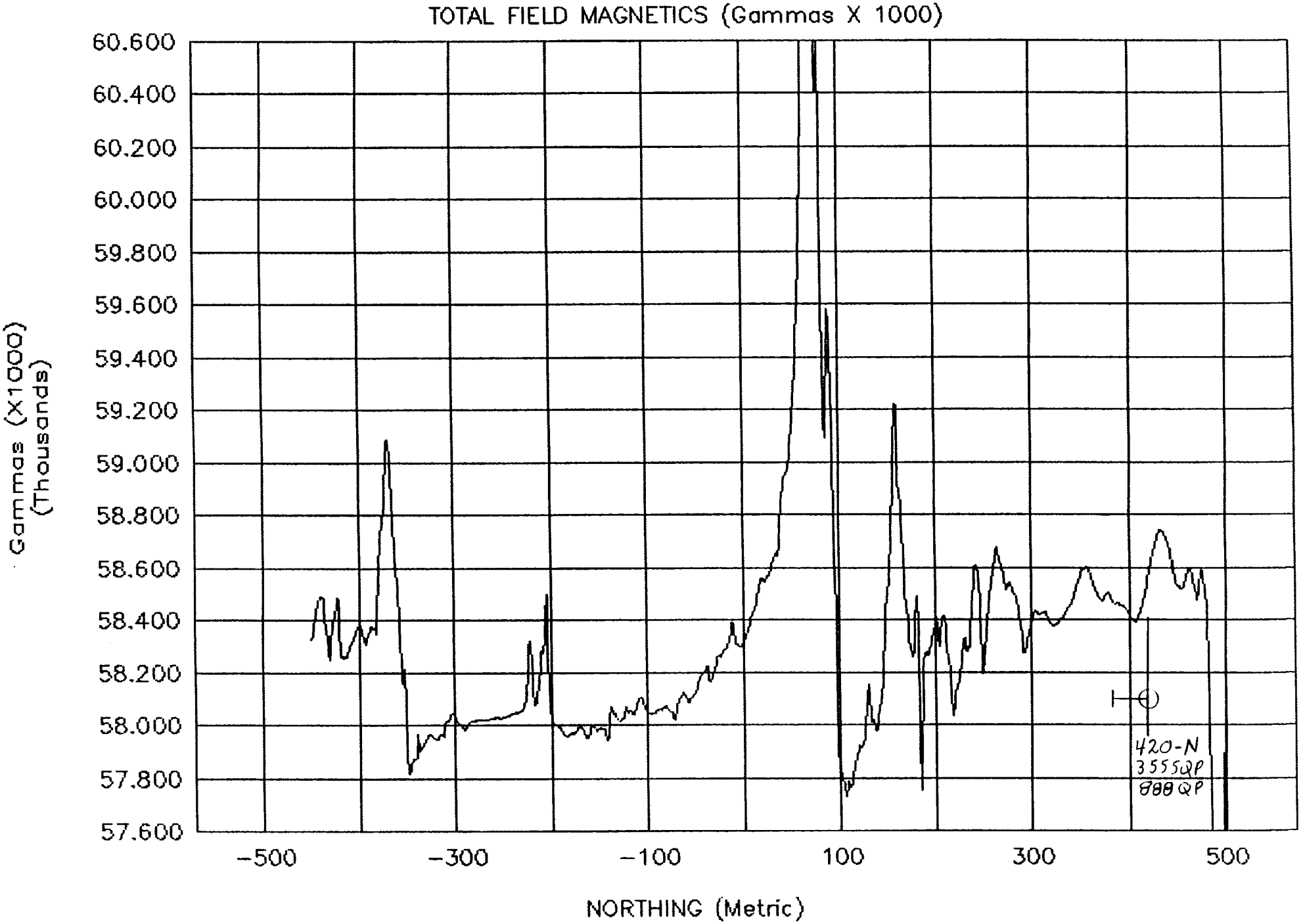
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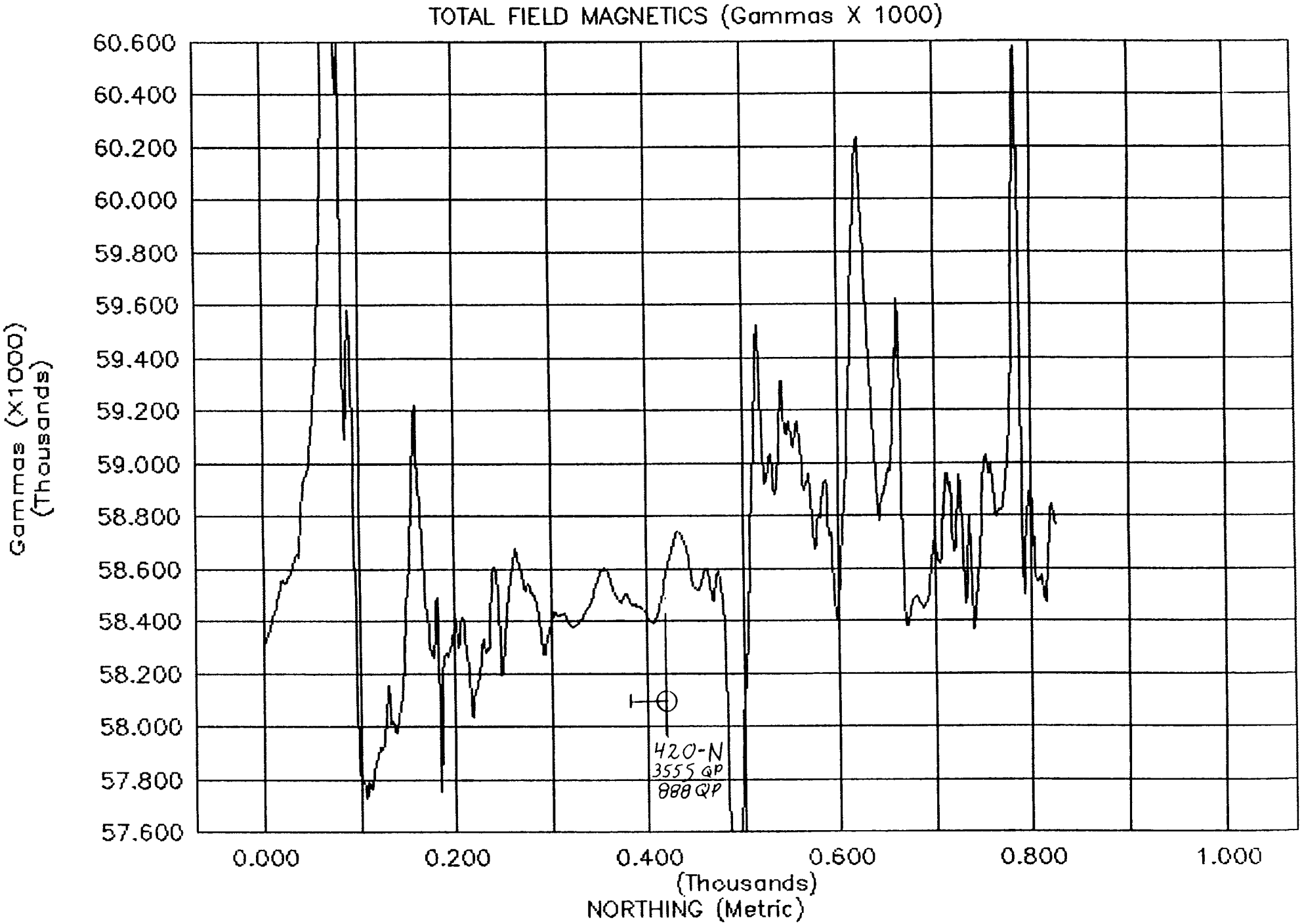
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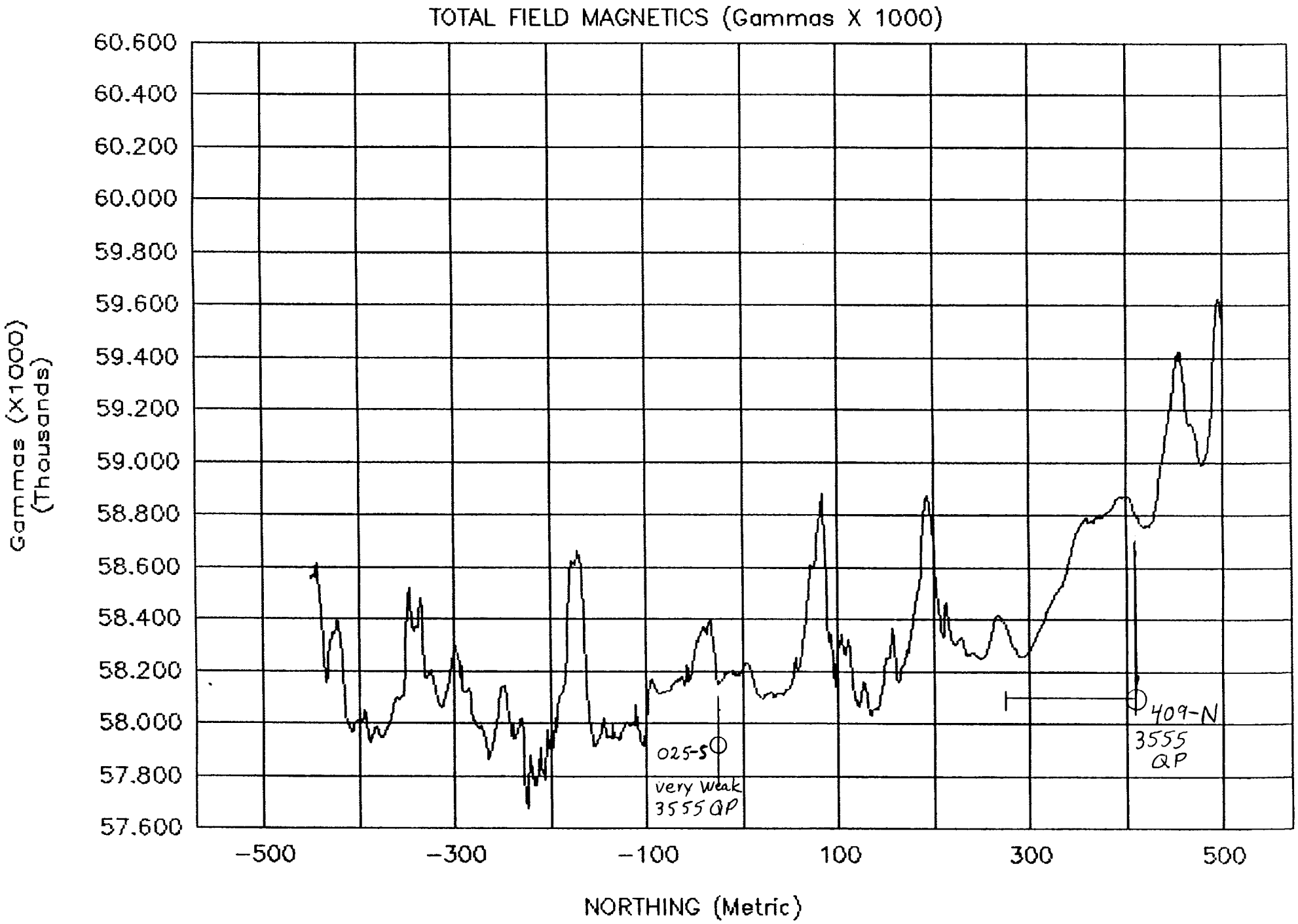
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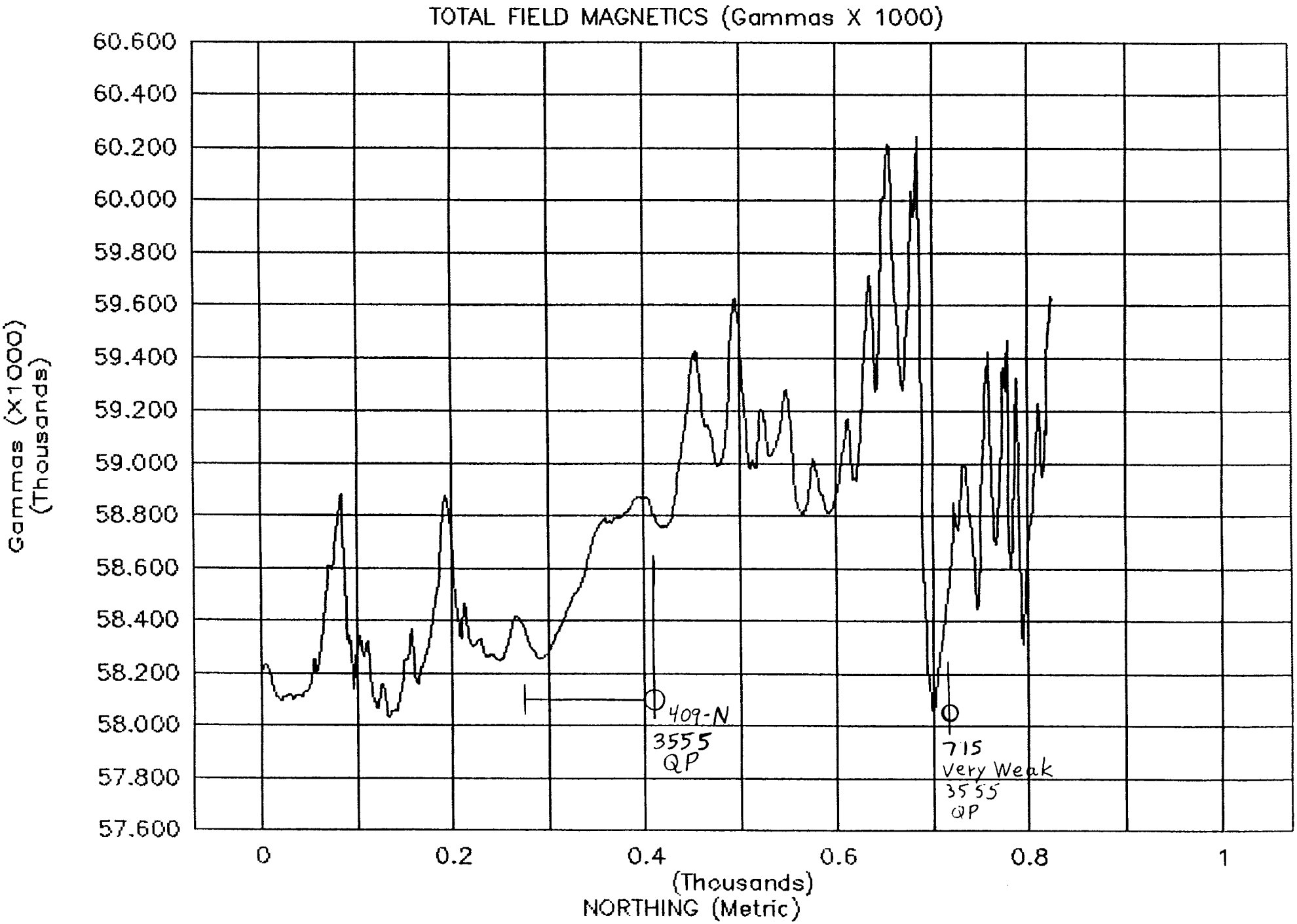
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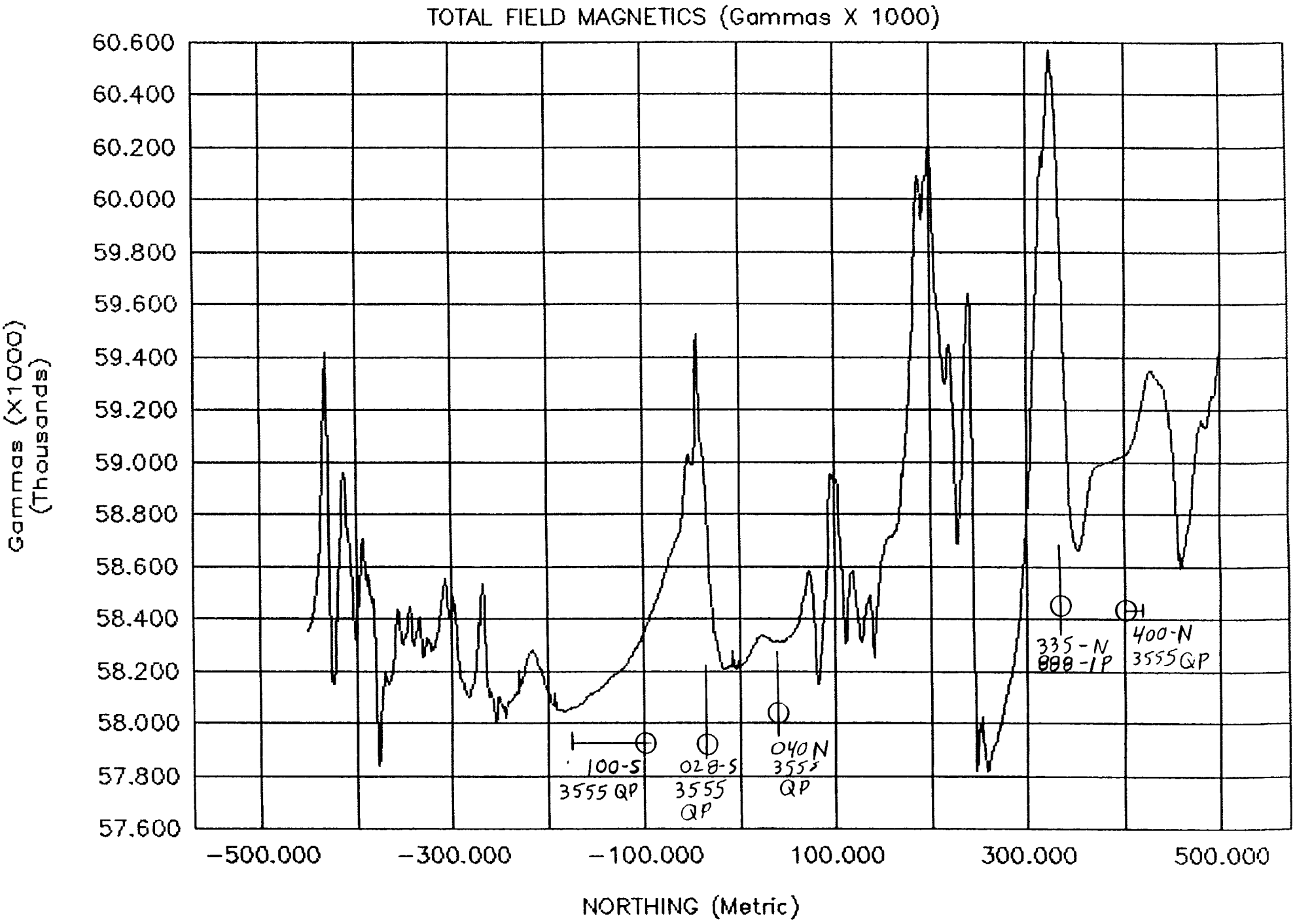
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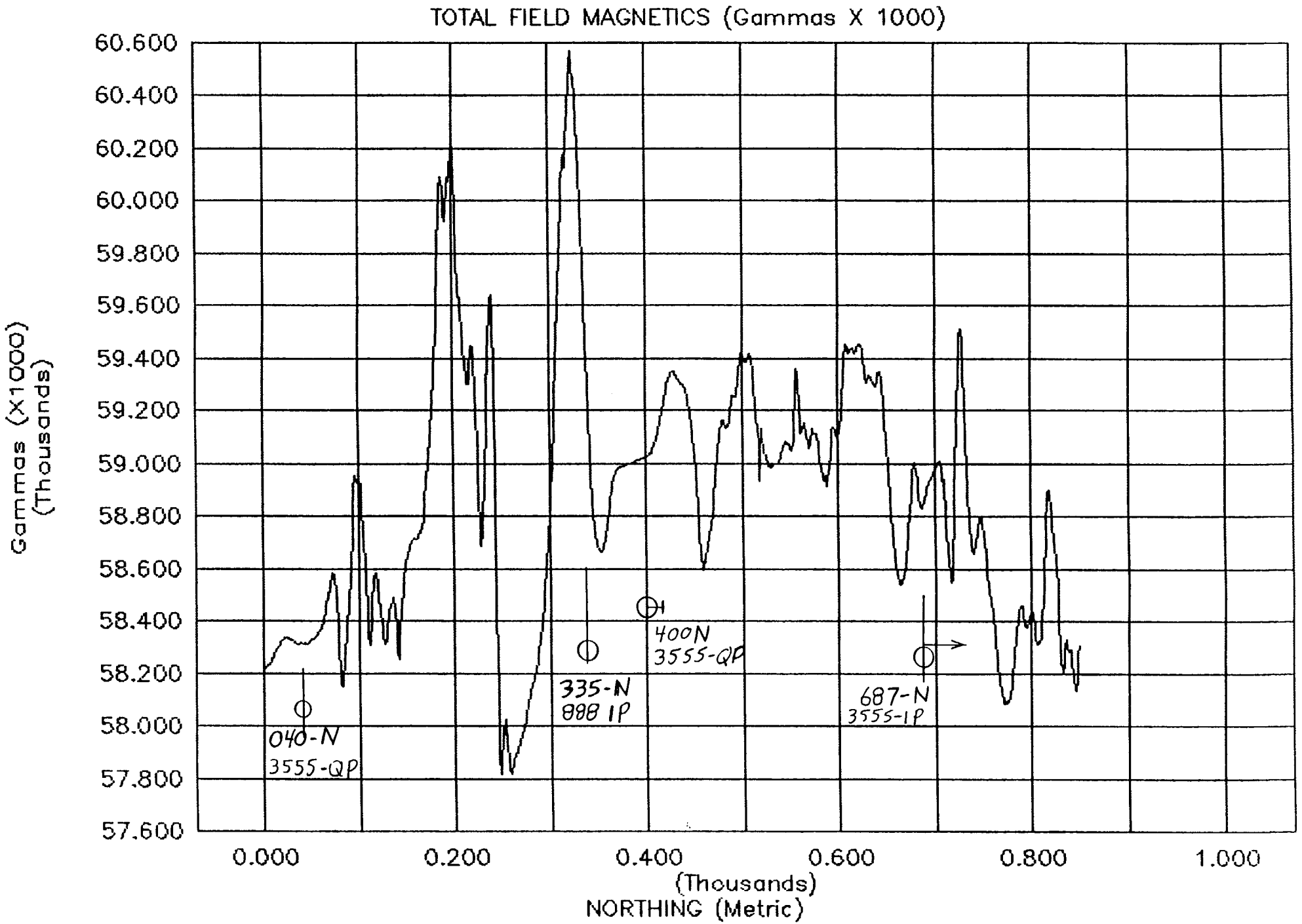
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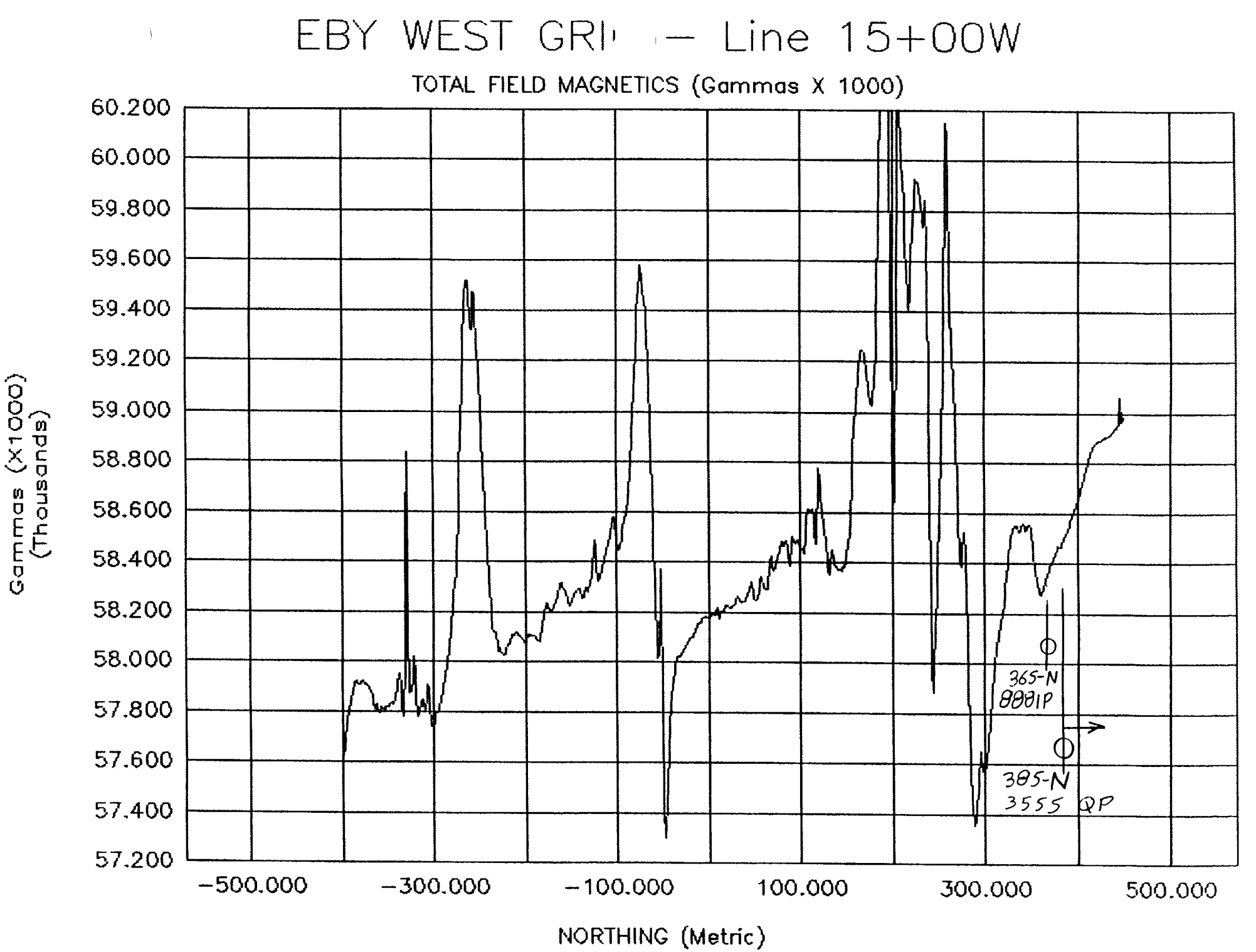


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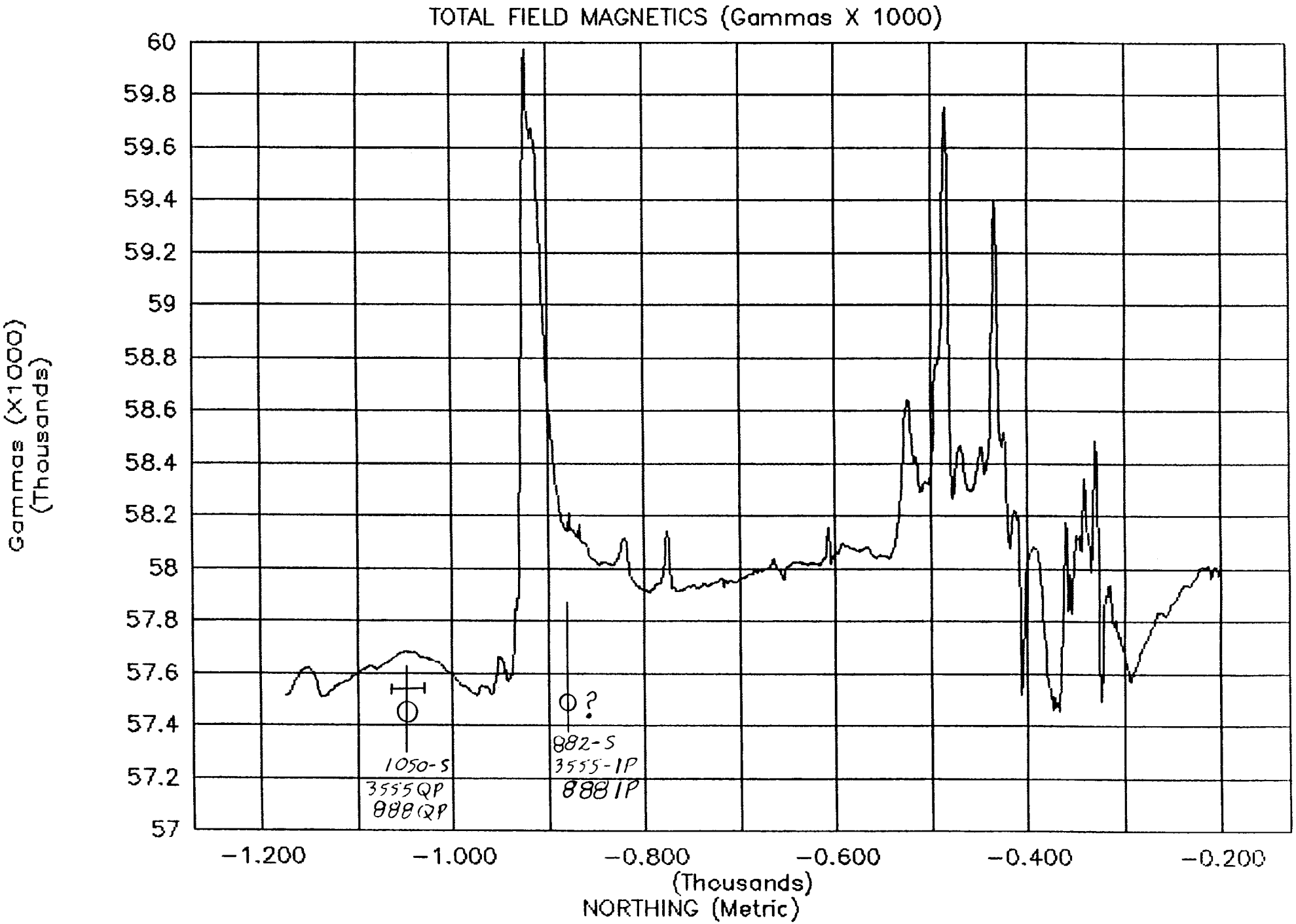


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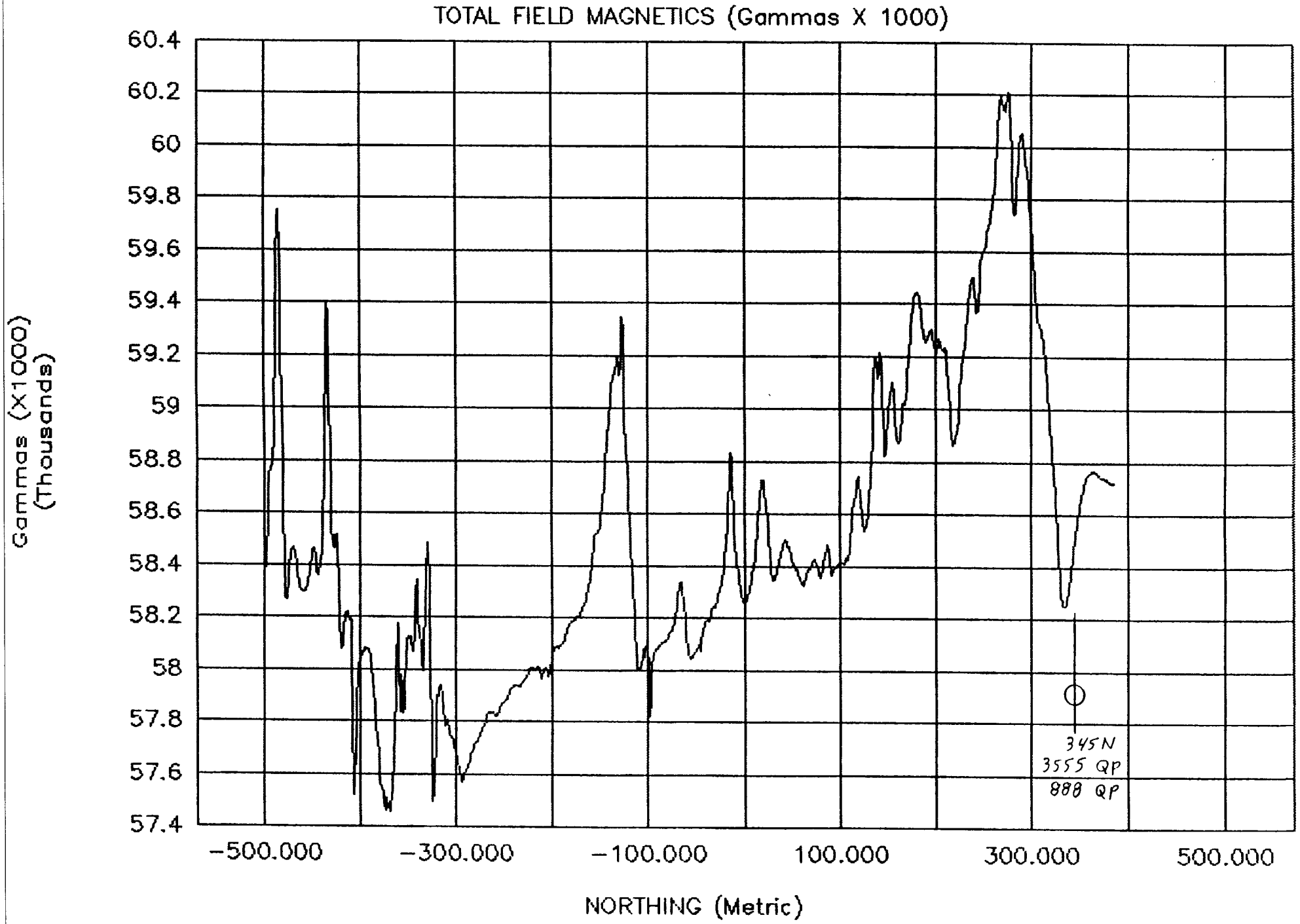



EBY WEST GRI — Line 15+00W
TOTAL FIELD MAGNETICS (Gammas X 1000)
60.200
60.000
59.800
59.600
59.400
59.200
59.000
58.800
58.600
58.400
58.200
58.000
57.800
57.600
57.400
57.200
Gammas (X1000)
(Thousands)
-500.000
-300.000
-100.000
100.000
300.000
500.000
NORTHING (Metric)
365-N
0001P
385-N
3555 QP

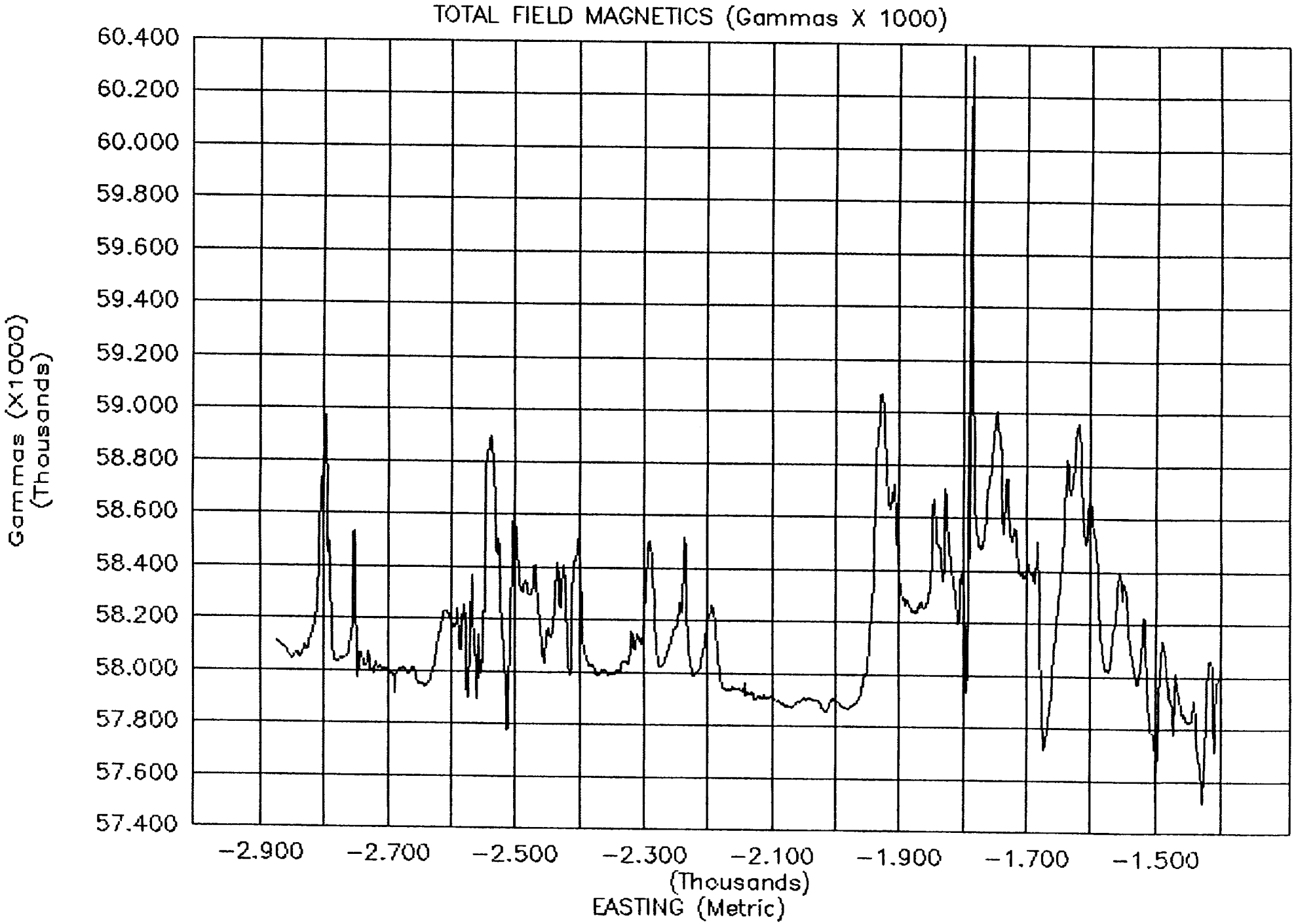
EBY WEST GRI — Line 14+00W



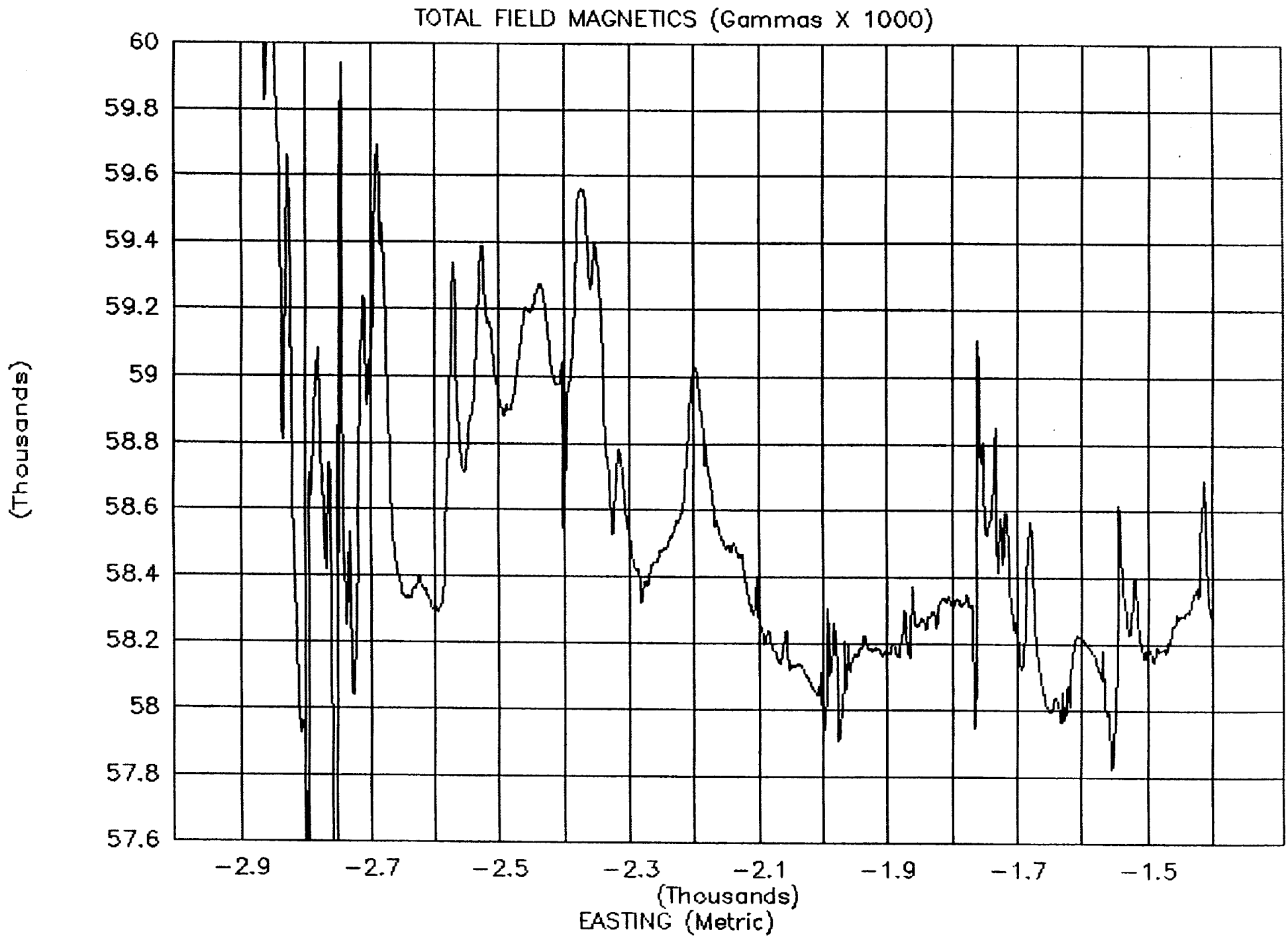
EBY WEST GRID – Line 14+00W



EBY WEST GR D — Line 4+00S

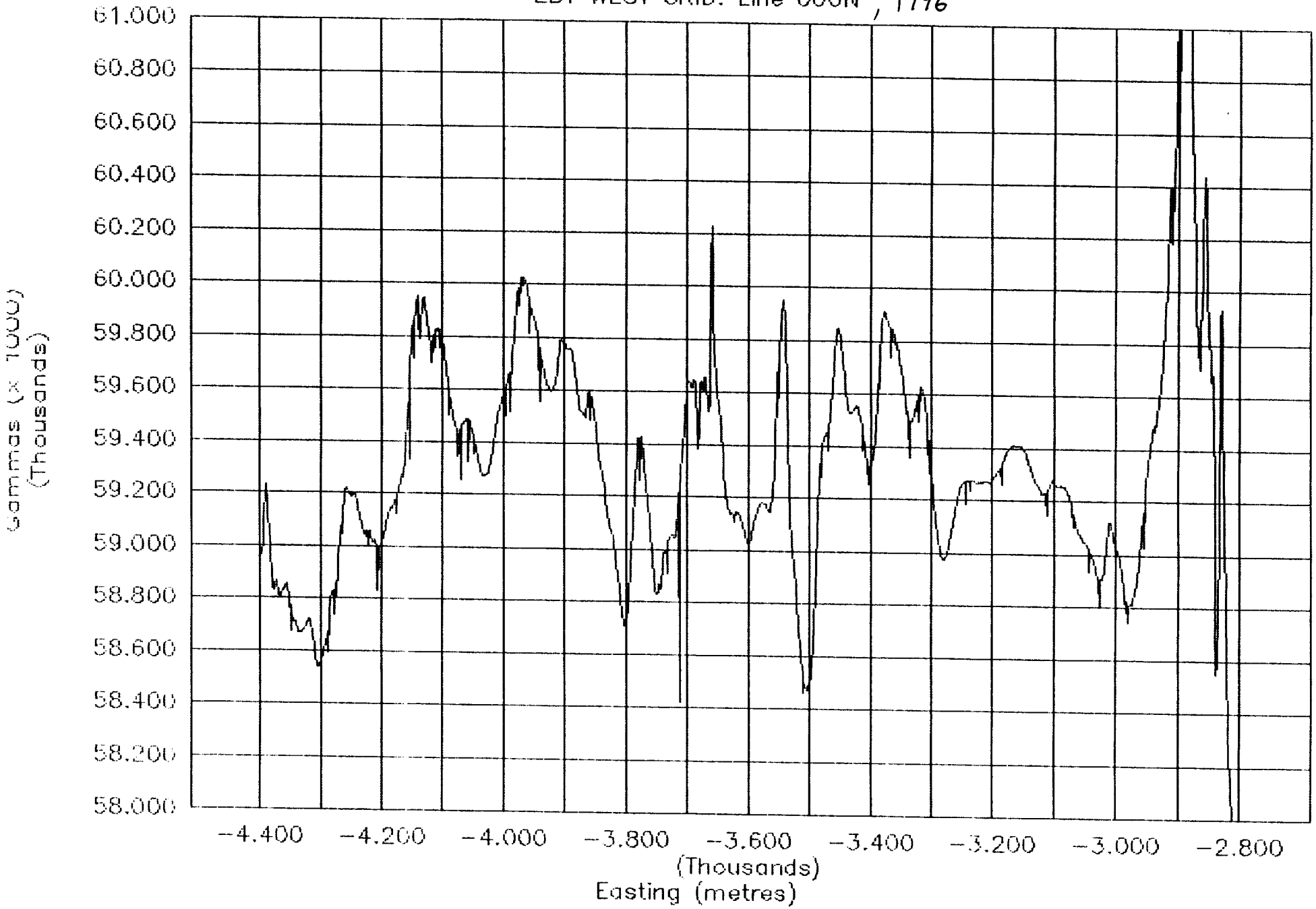


EBY WEST GRIL – Line 0+00 BL



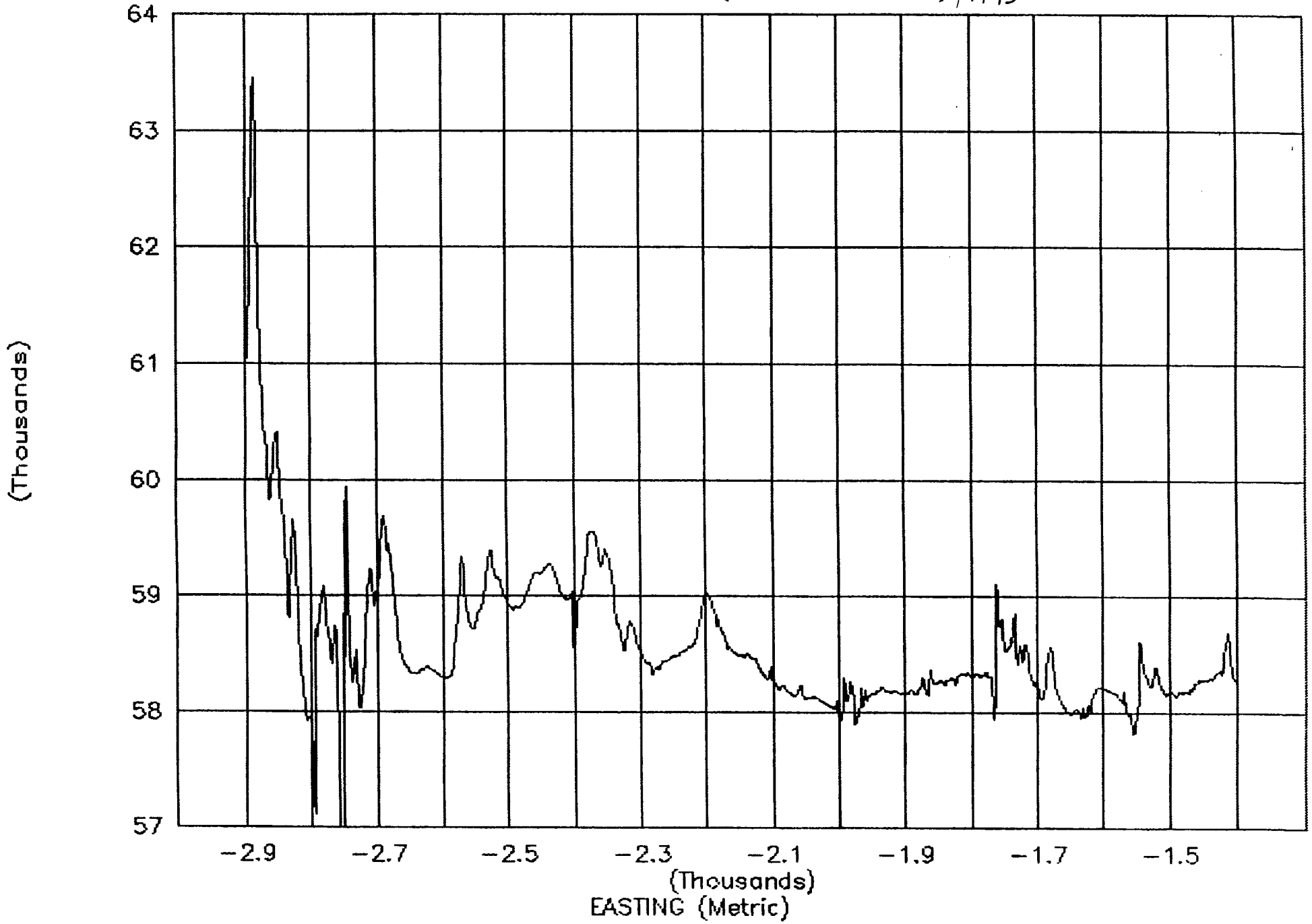
Total Field Strength

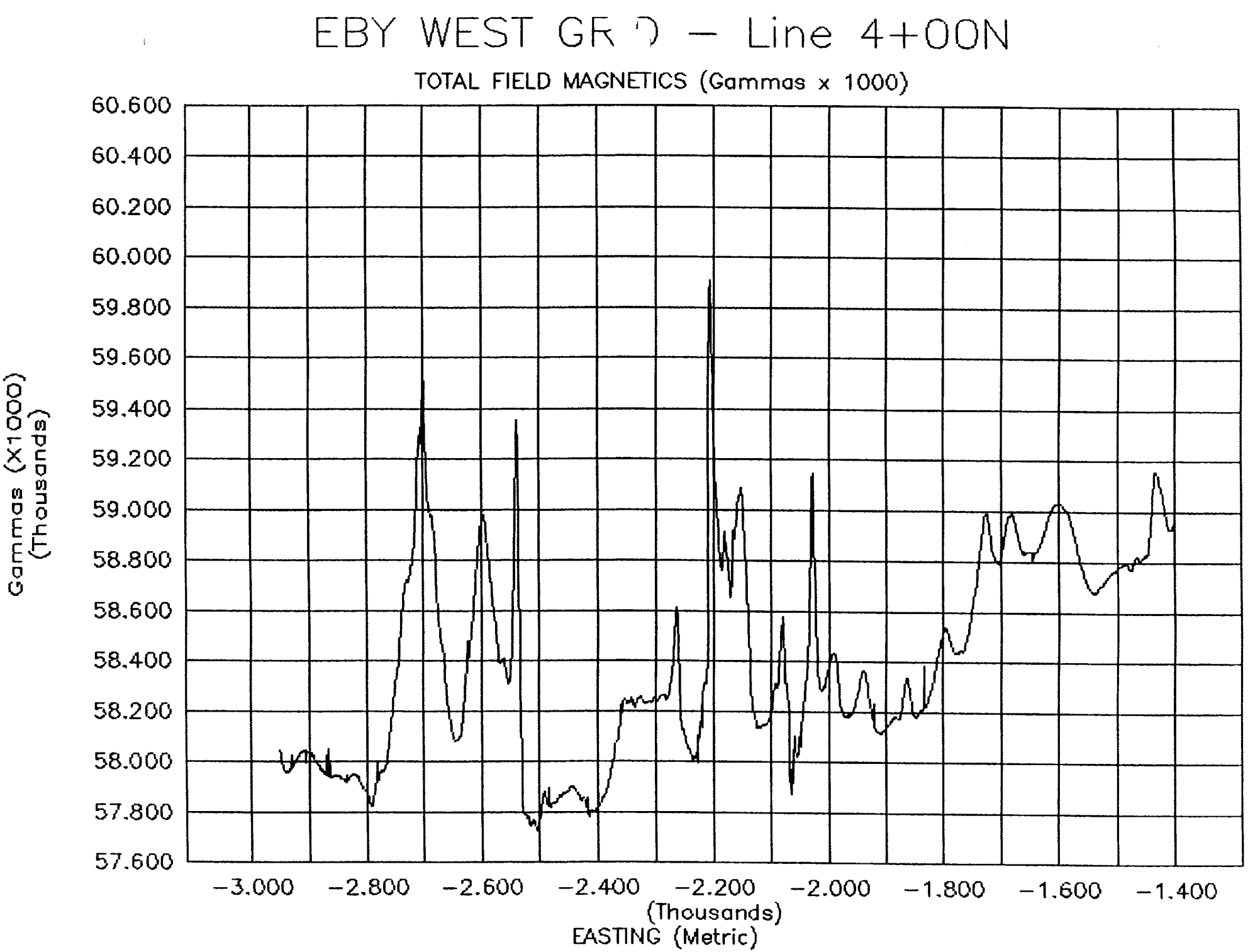
EBY WEST GRID: Line 000N , 1996



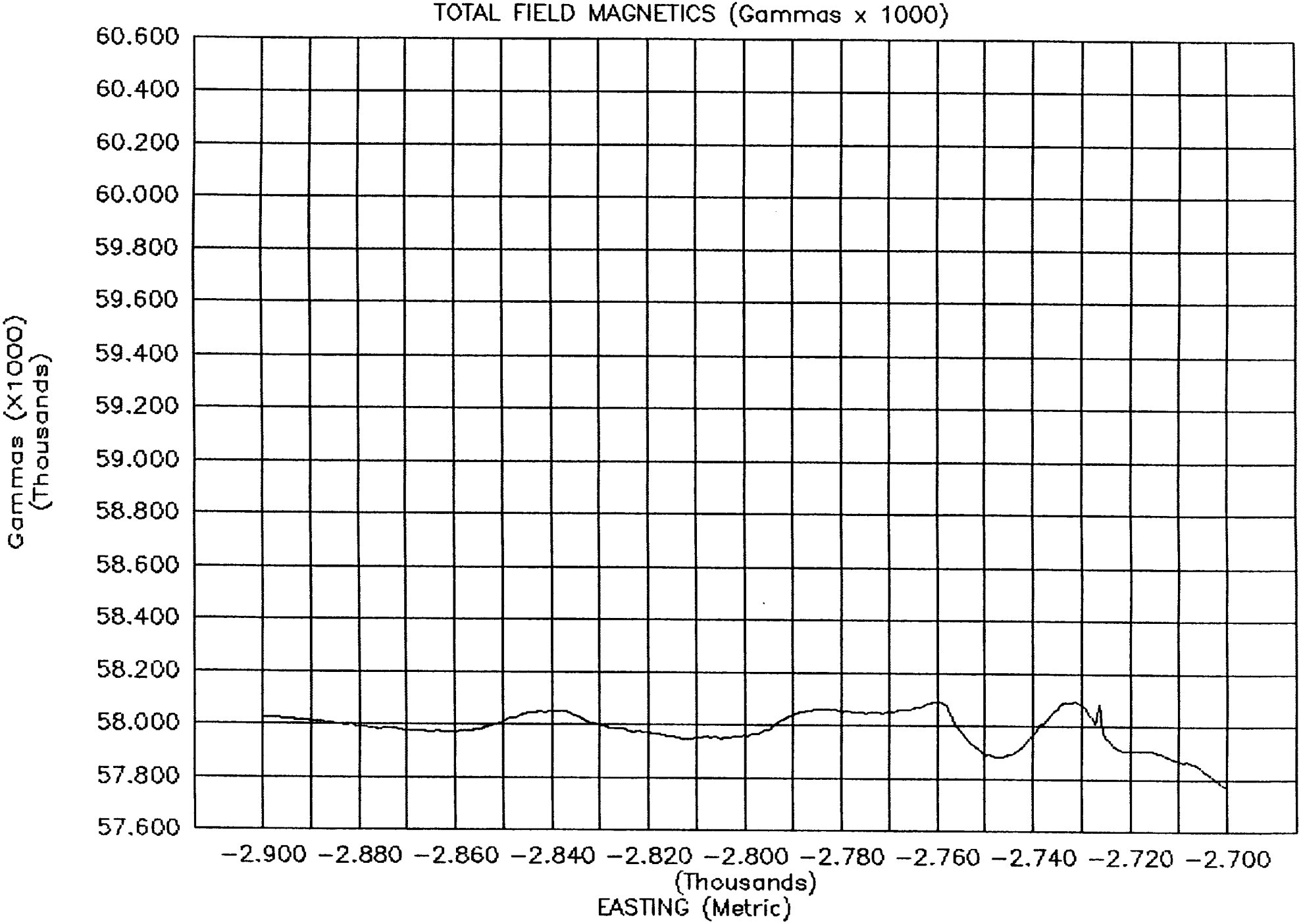
EBY WEST GRID — Line 0+00 BL

TOTAL FIELD MAGNETICS (Gammas X 1000), 1995



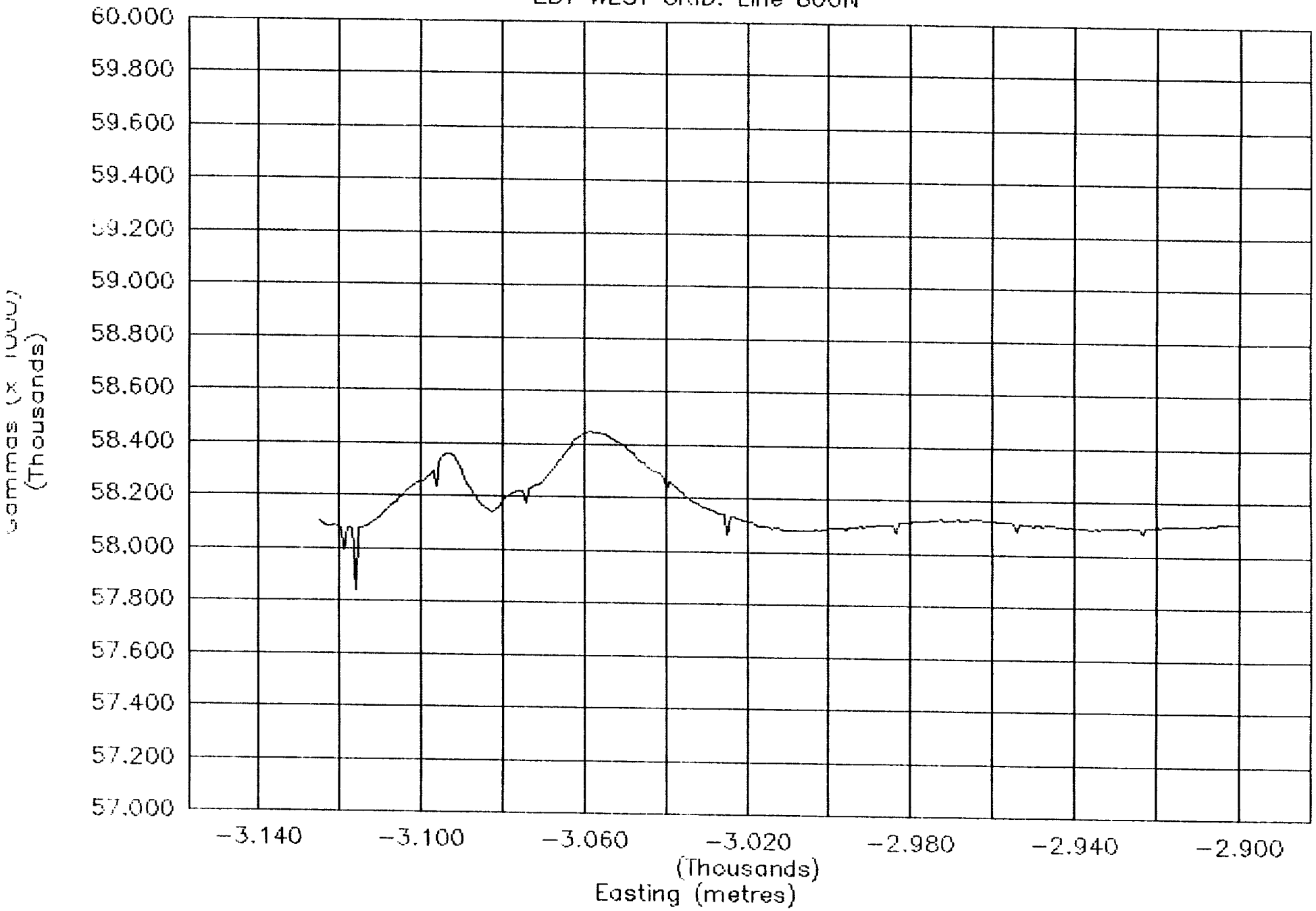

EBY WEST GRID — Line 4+00N
TOTAL FIELD MAGNETICS (Gammas x 1000)
60.600
60.400
60.200
60.000
59.800
59.600
59.400
59.200
59.000
58.800
58.600
58.400
58.200
58.000
57.800
57.600
Gammas (X1000)
(Thousands)
-3.000
-2.800
-2.600
-2.400
-2.200
-2.000
-1.800
-1.600
-1.400
(Thousands)
EASTING (Metric)

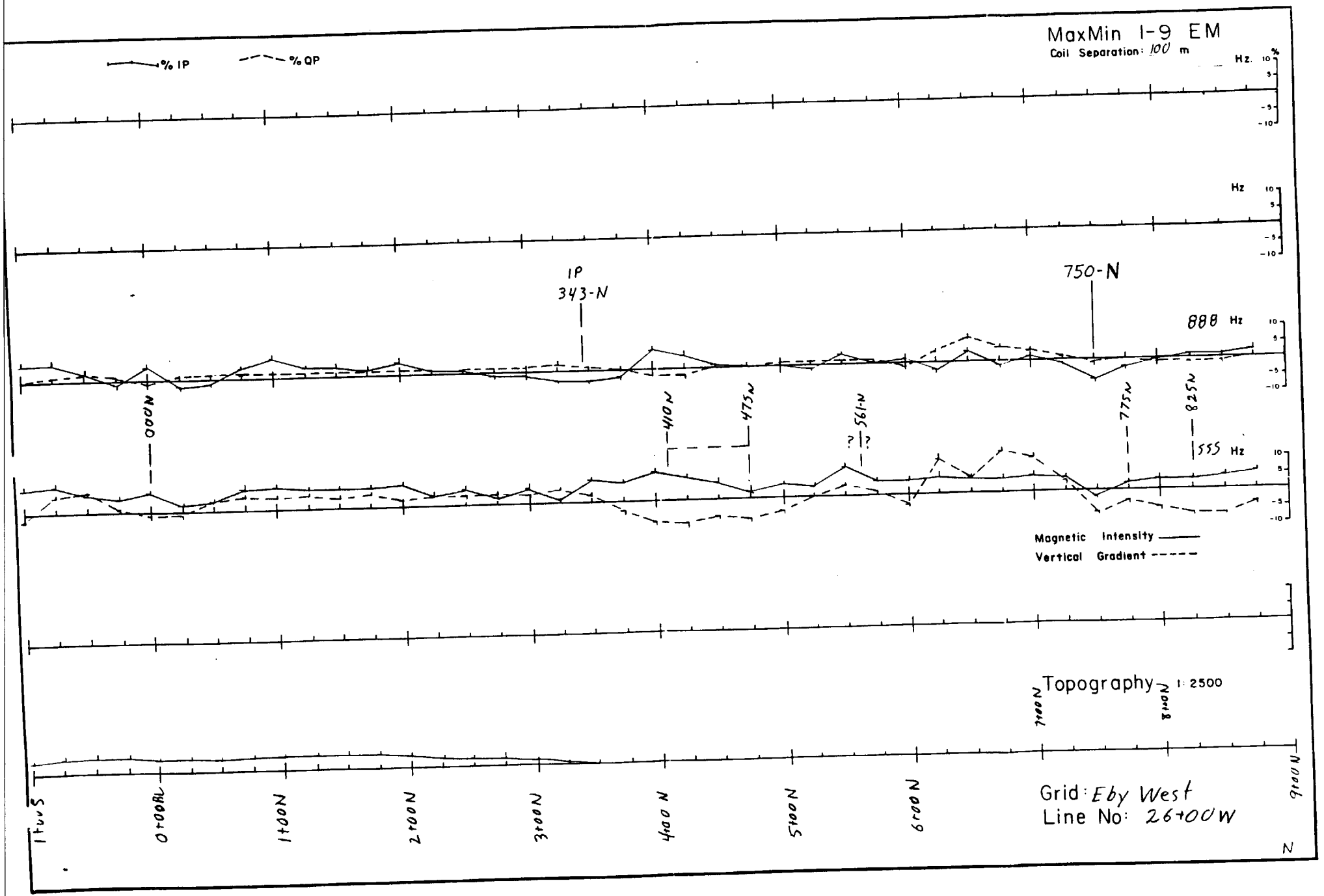
EBY WEST GR ? — Line 7+50N

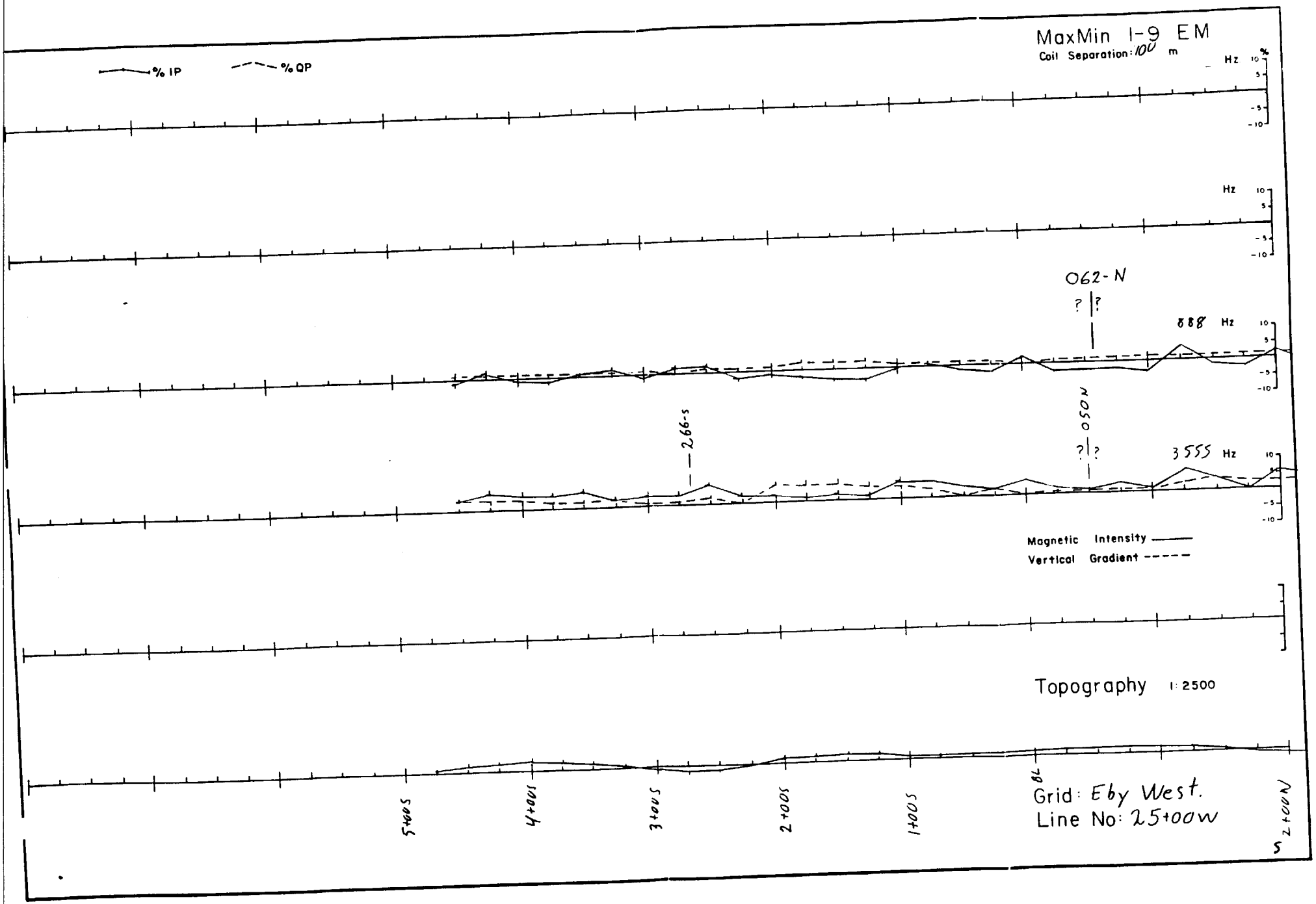


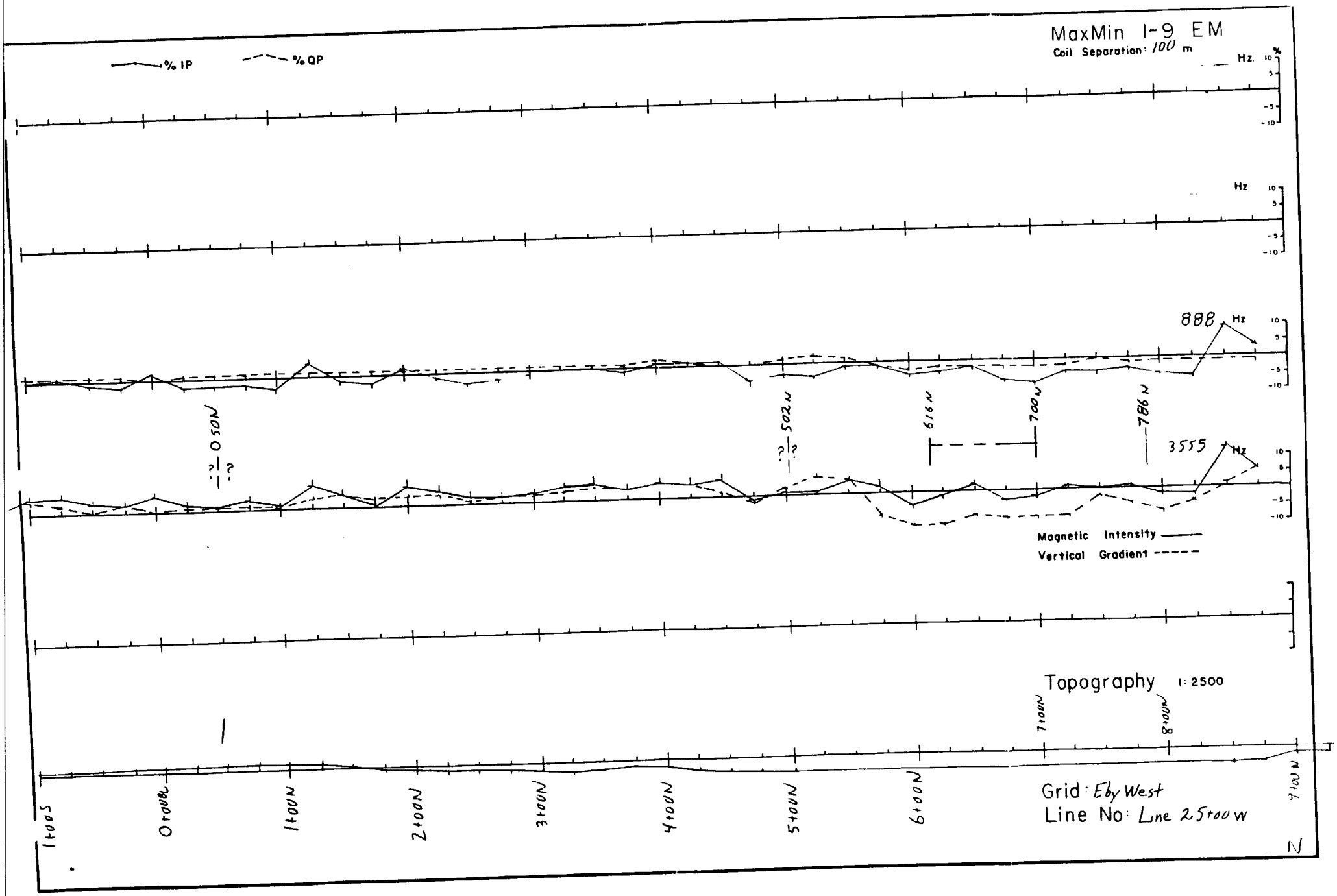
Total Field Strength

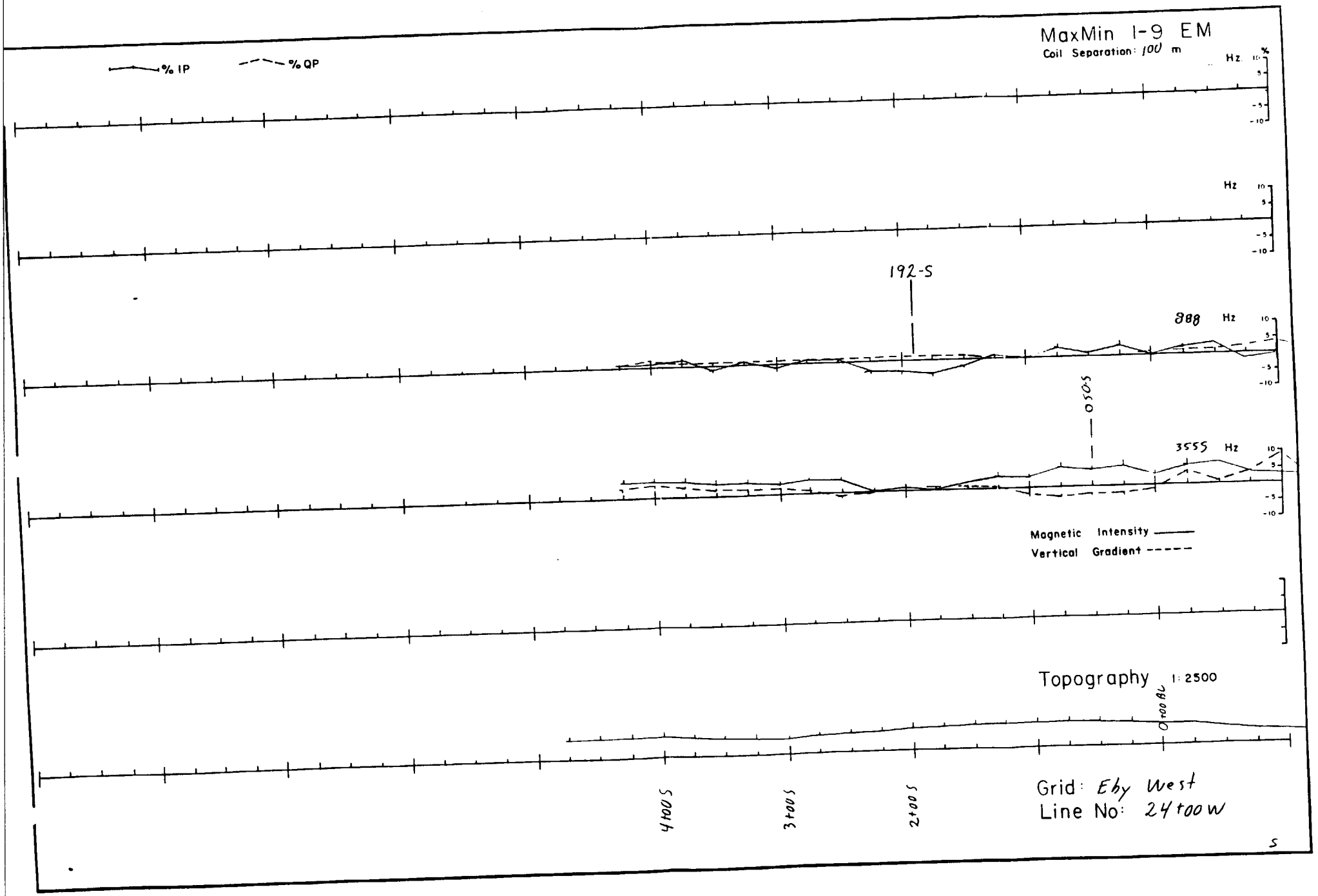
EBY WEST GRID: Line 800N

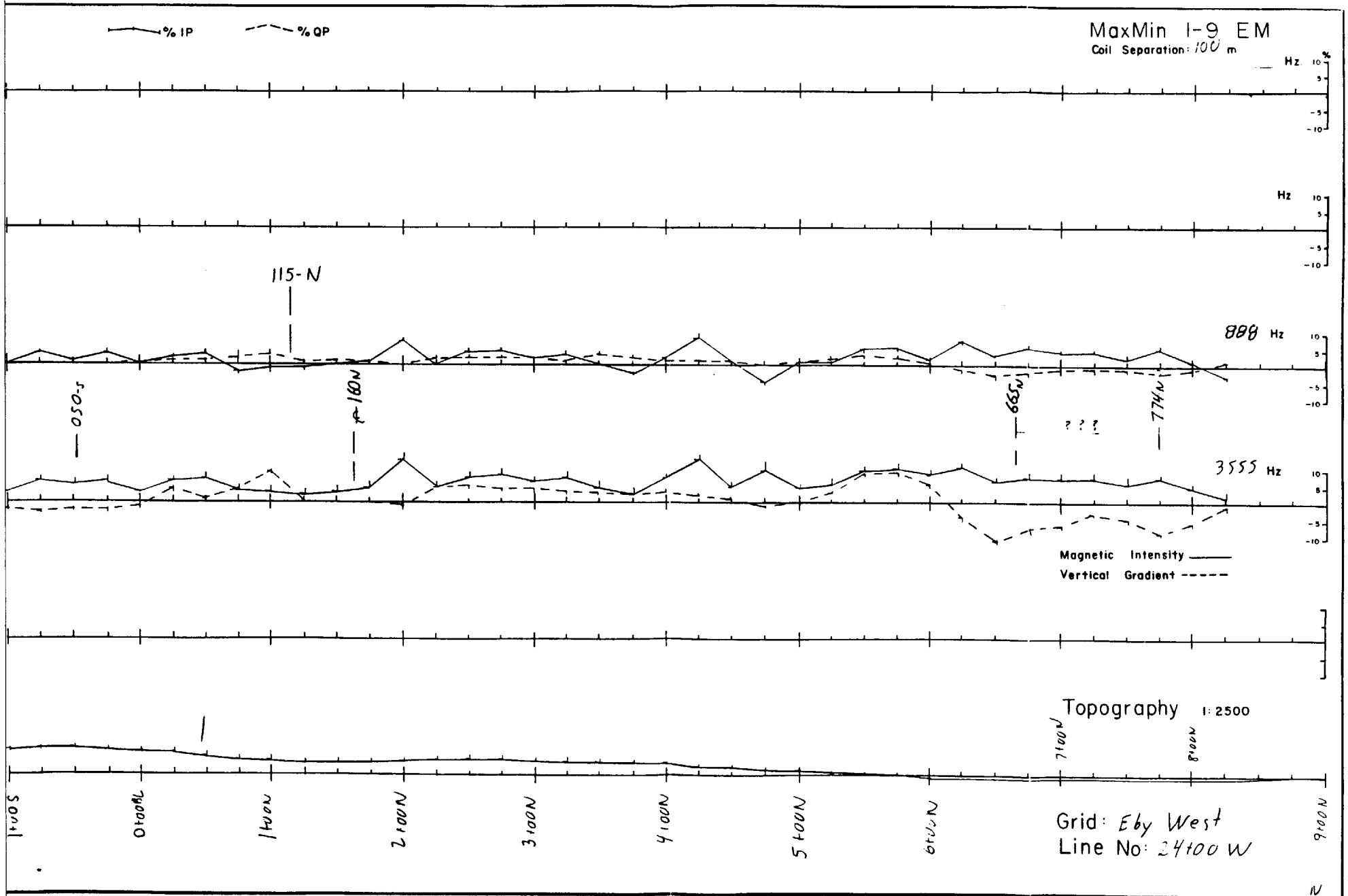


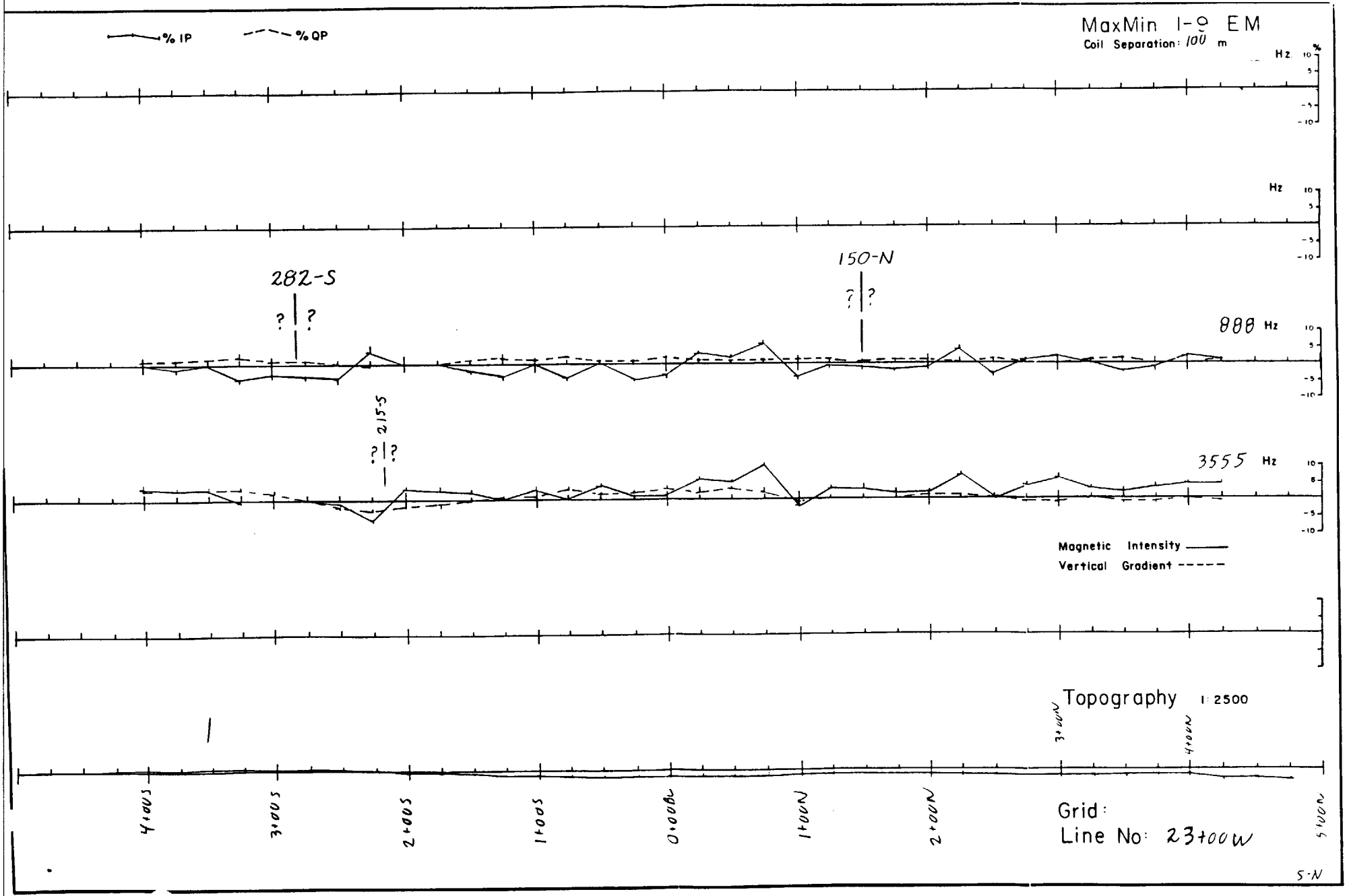

MaxMin I-9 EM
Coil Separation: 100 m
% IP
% QP
Hz
IP
343-N
750-N
888 Hz
000N
410N
475N
561N
775N
825N
555 Hz
Magnetic Intensity
Vertical Gradient
Topography 1:2500
7100N
8000N
9100N
Grid: E by West
Line No: 26+00W
N

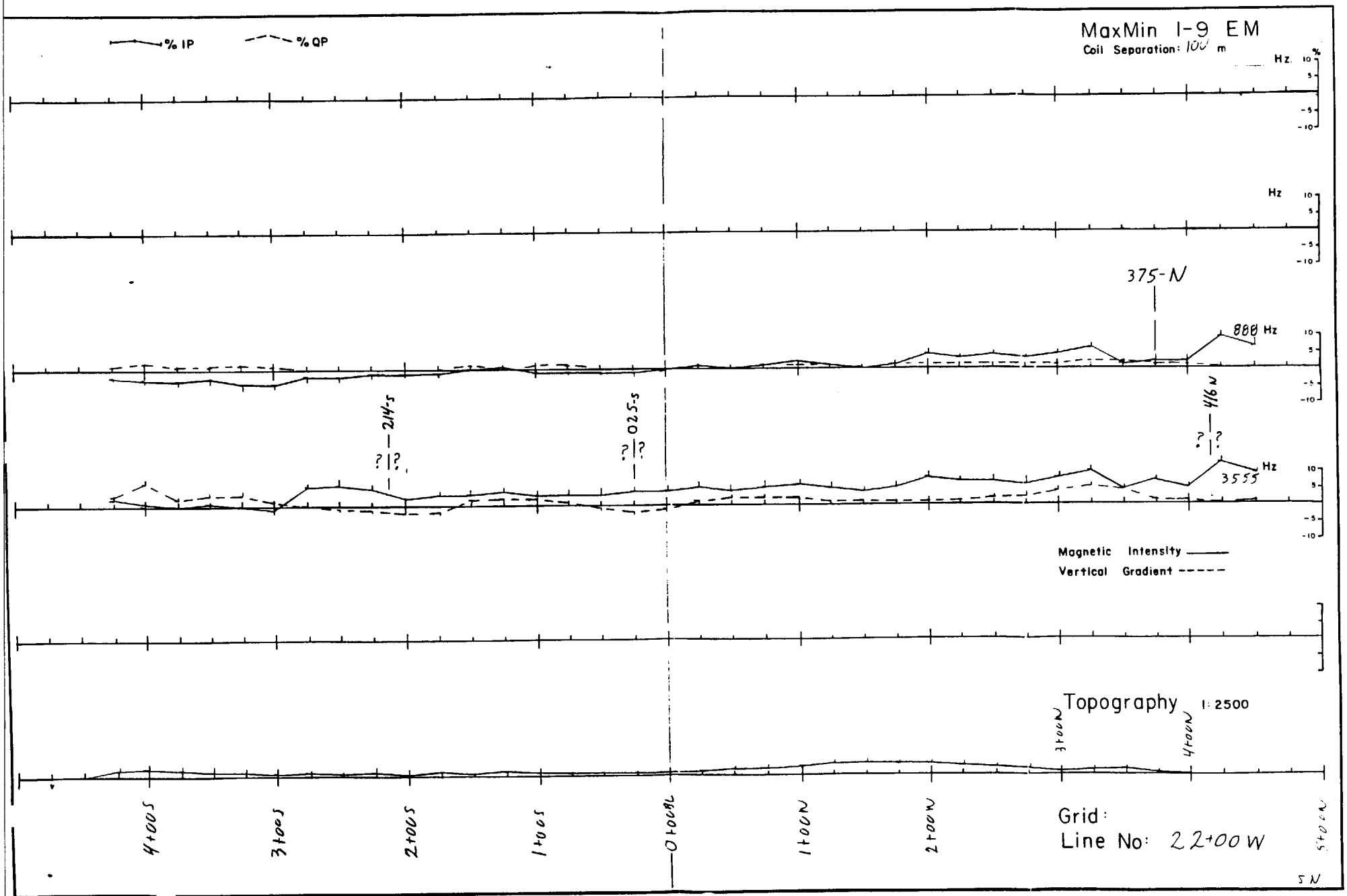

MaxMin I-9 EM
Coil Separation: 100 m
% IP
% QP
Hz
062-N
888 Hz
266-S
050W
3555 Hz
Magnetic Intensity
Vertical Gradient
Topography 1:2500
5+00S
4+00S
3+00S
2+00S
1+00S
BL
2+00N
Grid: Eby West.
Line No: 25+00W


MaxMin I-9 EM
Coil Separation: 100 m
% IP
% QP
Hz
888 Hz
3555 Hz
050N
502N
616N
700N
786N
Magnetic Intensity
Vertical Gradient
Topography 1:2500
7100N
8100N
9100N
1+00S
0+00E
1+00N
2+00N
3+00N
4+00N
5+00N
6+00N
Grid: Eby West
Line No: Line 25+00W
N

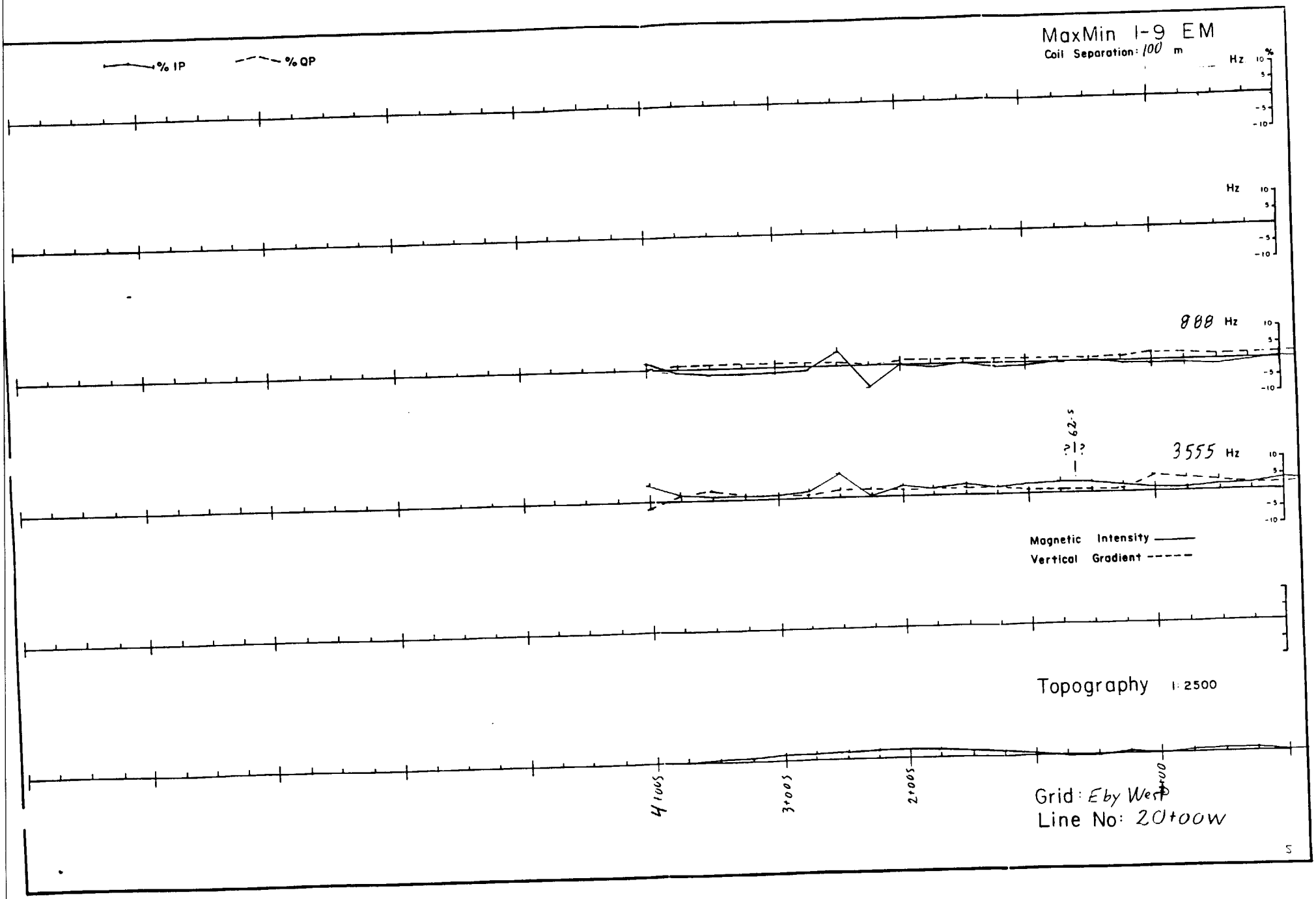

MaxMin I-9 EM
Coil Separation: 100 m
% IP
% QP
Hz
Hz
192-S
888 Hz
050S
3555 Hz
Magnetic Intensity
Vertical Gradient
Topography 1:2500
0+00 BL
4+00S
3+00S
2+00S
Grid: Eby West
Line No: 24+00W
S

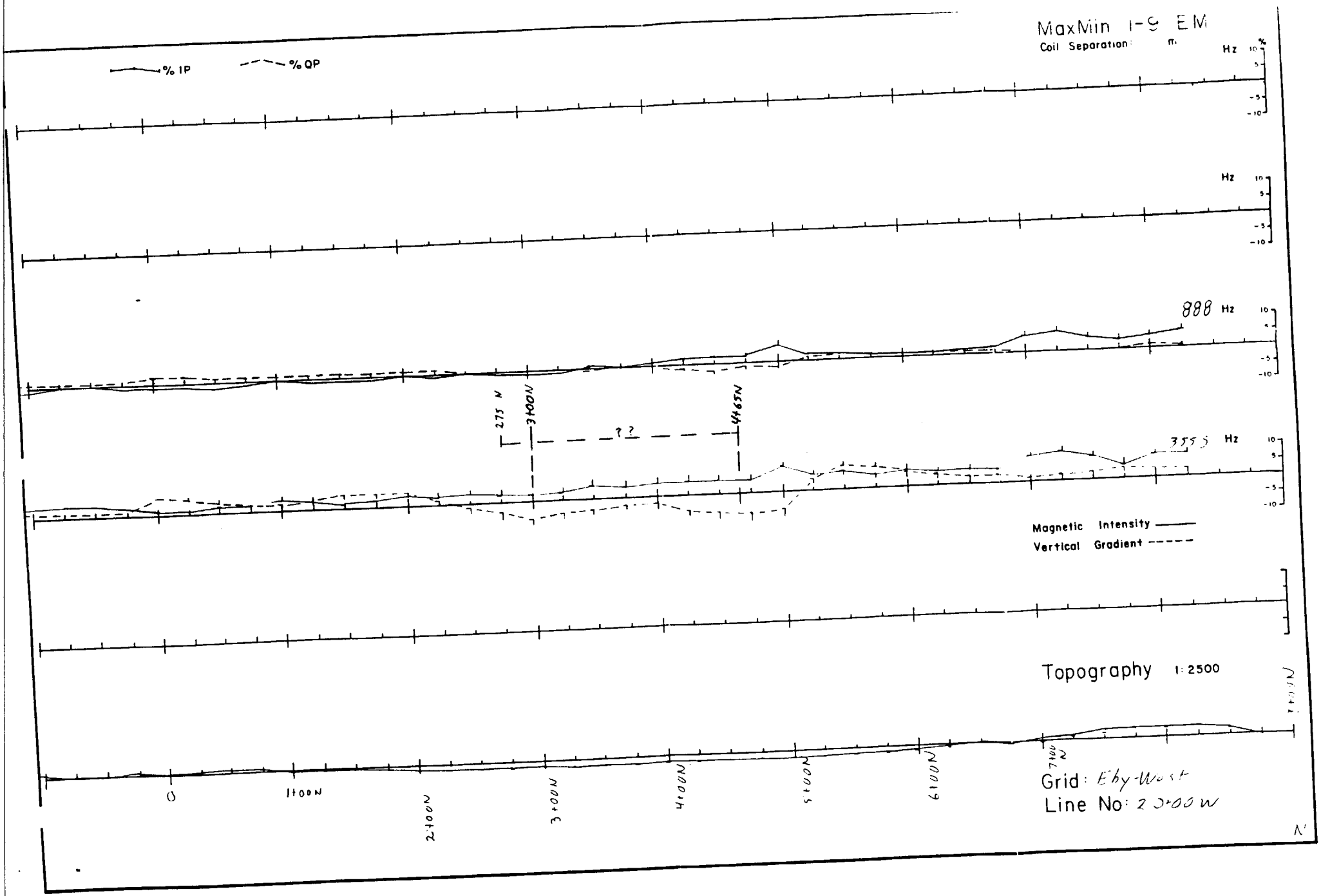

% IP
% QP
MaxMin I-9 EM
Coil Separation: 100 m
Hz
%
10
5
-5
-10
Hz
10
5
-5
-10
115-N
888 Hz
10
5
-5
-10
050-S
180N
665N
774N
???
3555 Hz
10
5
-5
-10
Magnetic Intensity
Vertical Gradient
Topography 1:2500
7100N
8100N
S00+1
0+00E
1+00N
2+00N
3+00N
4+00N
5+00N
6+00N
9+00N
Grid: Eby West
Line No: 24100 W
N

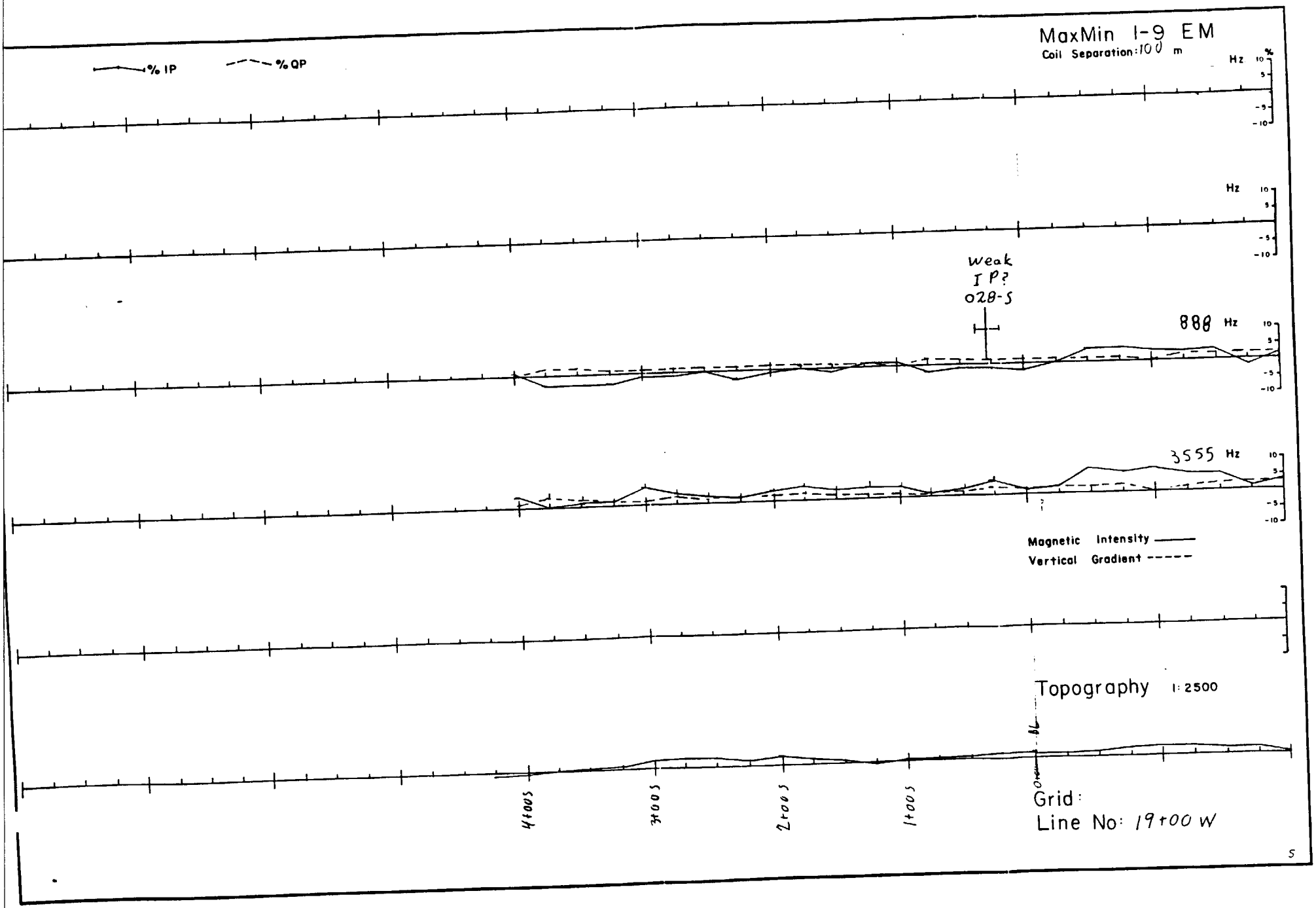

% IP
% QP
MaxMin I-O EM
Coil Separation: 100 m
Hz
%
Hz
282-S
150-N
888 Hz
215-S
3555 Hz
Magnetic Intensity
Vertical Gradient
Topography 1:2500
4+00S
3+00S
2+00S
1+00S
0+00
1+00N
2+00N
3+00N
4+00N
5+00N
Grid:
Line No: 23+00W
5-N

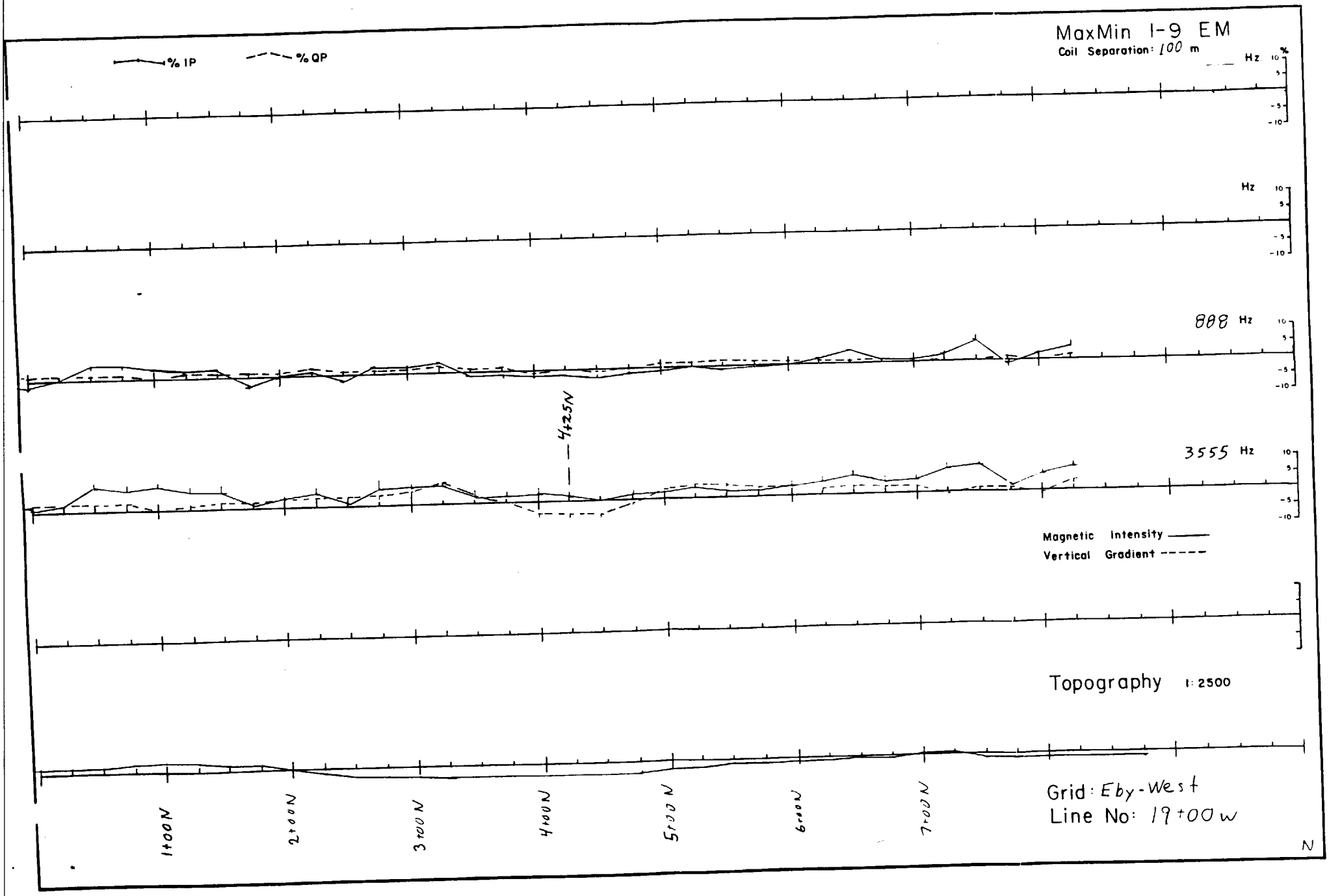

% IP
% QP
MaxMin I-9 EM
Coil Separation: 100 m
Hz.
Hz
375-N
880 Hz
214-S
025-S
416 N
3555 Hz
Magnetic Intensity
Vertical Gradient
Topography 1:2500
4+00S
3+00S
2+00S
1+00S
0+00BL
1+00N
2+00N
3+00N
4+00N
Grid:
Line No: 22+00 W
5 N

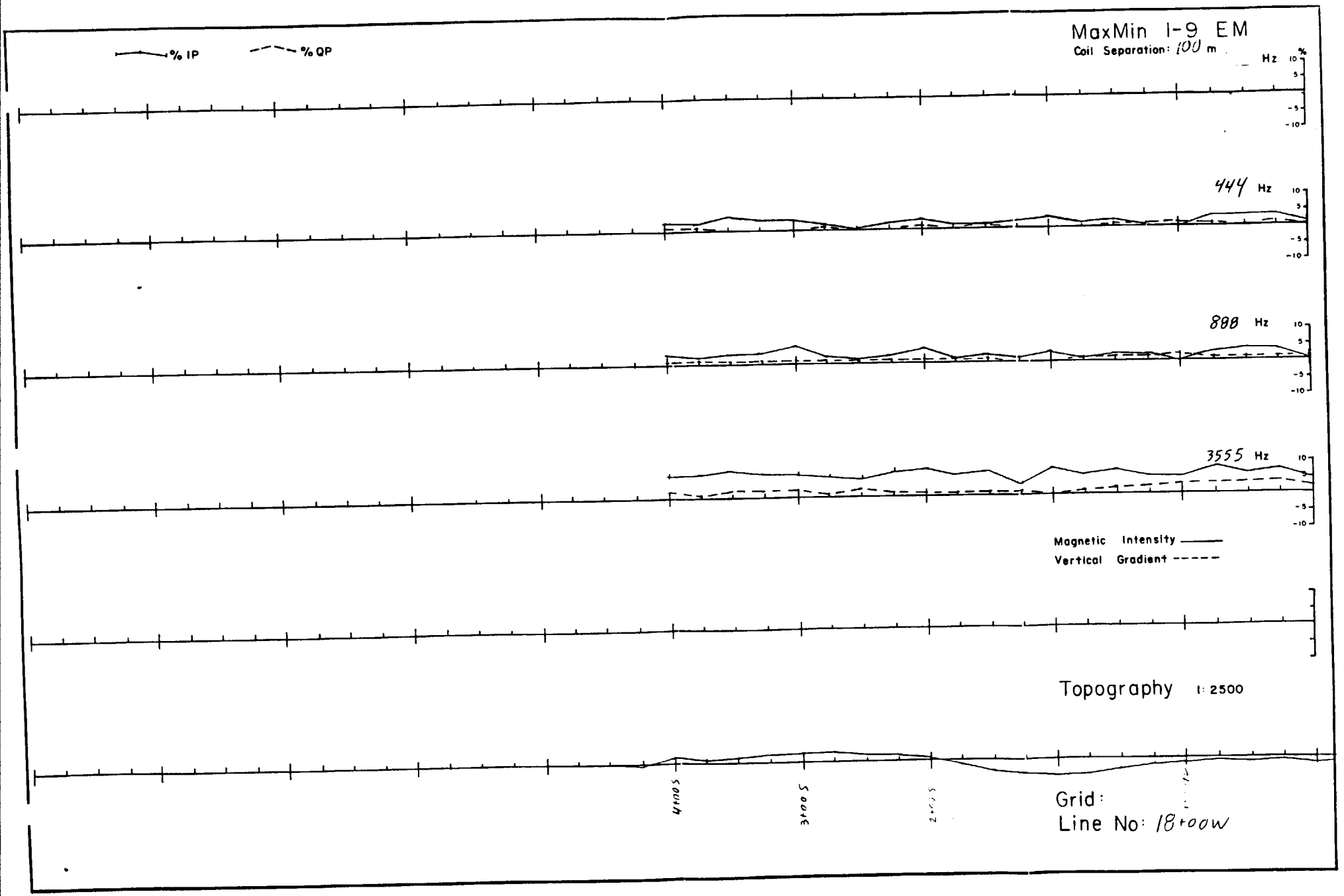
MaxMin I-9 EM
Coil Separation: 100 m
% IP
% QP
Hz
888 Hz
335-S
? ?
250N
300N
325N
3555 Hz
Magnetic Intensity
Vertical Gradient
Topography 1:2500
3100N
4100N
4+00S
3+00S
2+00S
1+00S
0+00
1+00N
2+00N
Grid:
Line No: 21+00W
S-8

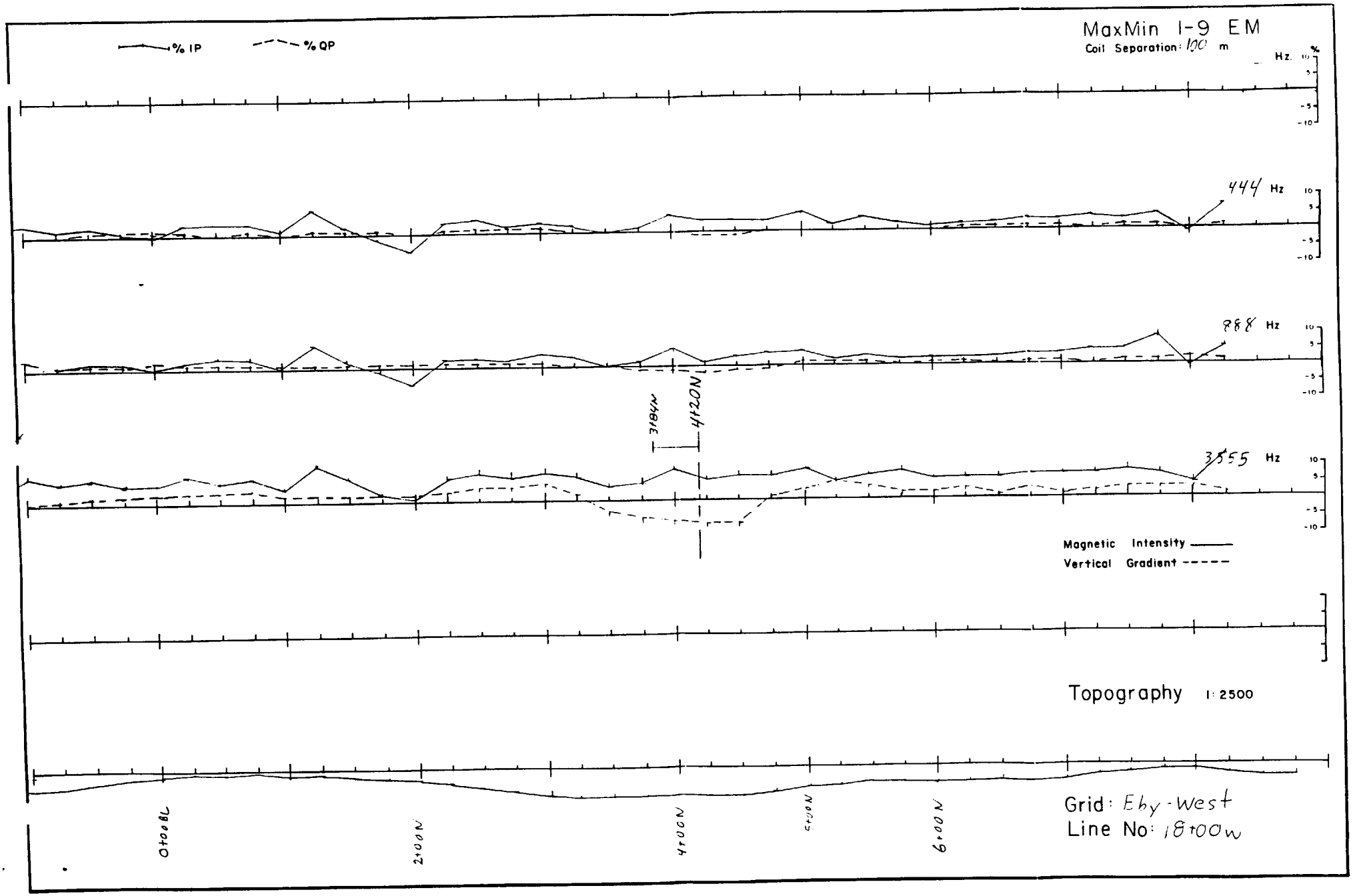

MaxMin I-9 EM
Coil Separation: 100 m
% IP
% QP
Hz
Hz
888 Hz
3555 Hz
62.5
Magnetic Intensity
Vertical Gradient
Topography 1:2500
4+00S
3+00S
2+00S
1+00S
Grid: E by West
Line No: 20+00W
5

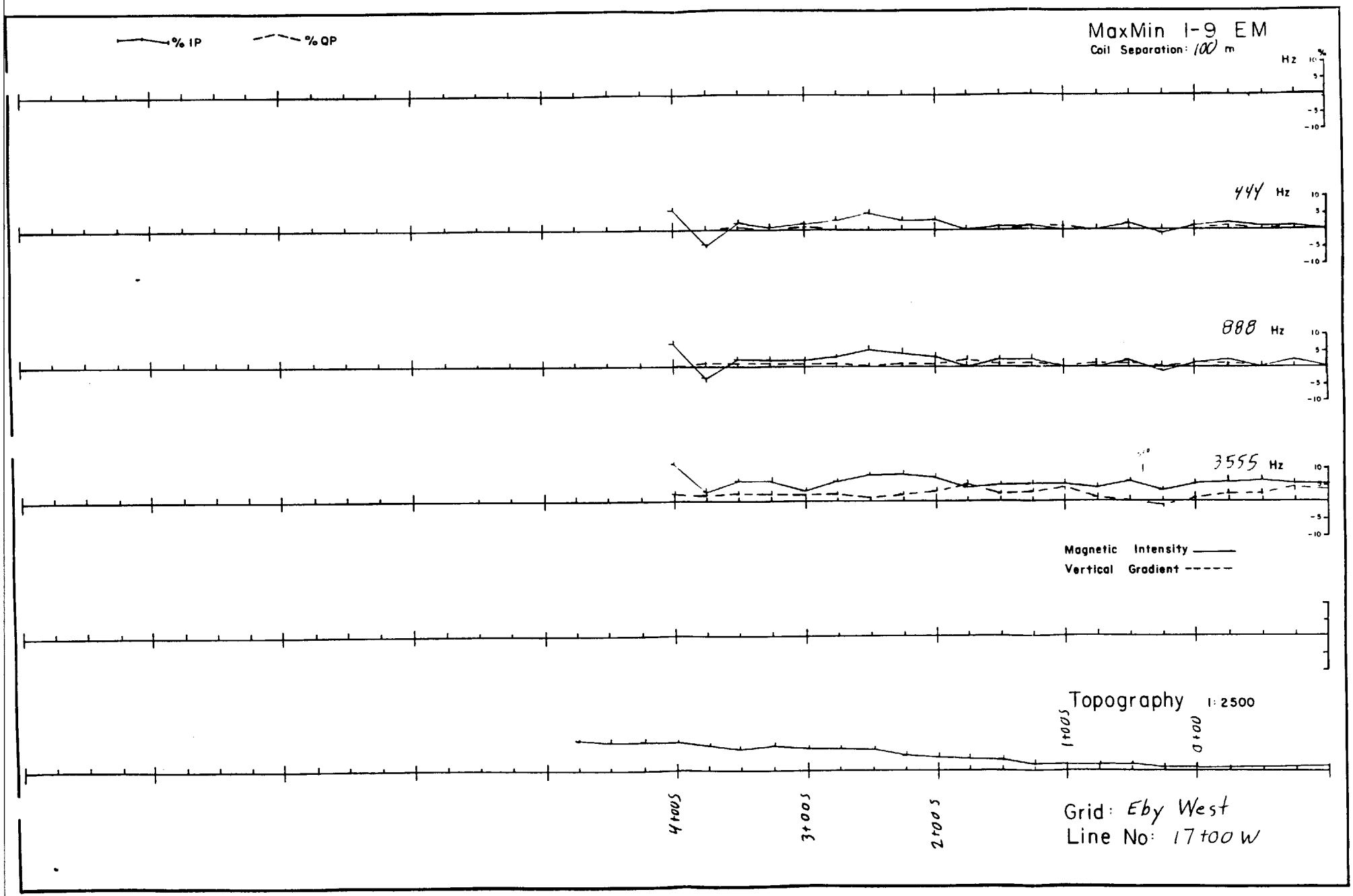

MaxMin I-9 EM
Coil Separation:
% IP
% QP
Hz
888 Hz
355 Hz
275 N
3100N
4465N
??
Magnetic Intensity
Vertical Gradient
Topography 1:2500
0
1100N
2100N
3100N
4100N
5100N
6100N
7100N
Grid: E-by-West
Line No: 2 3100 W
N

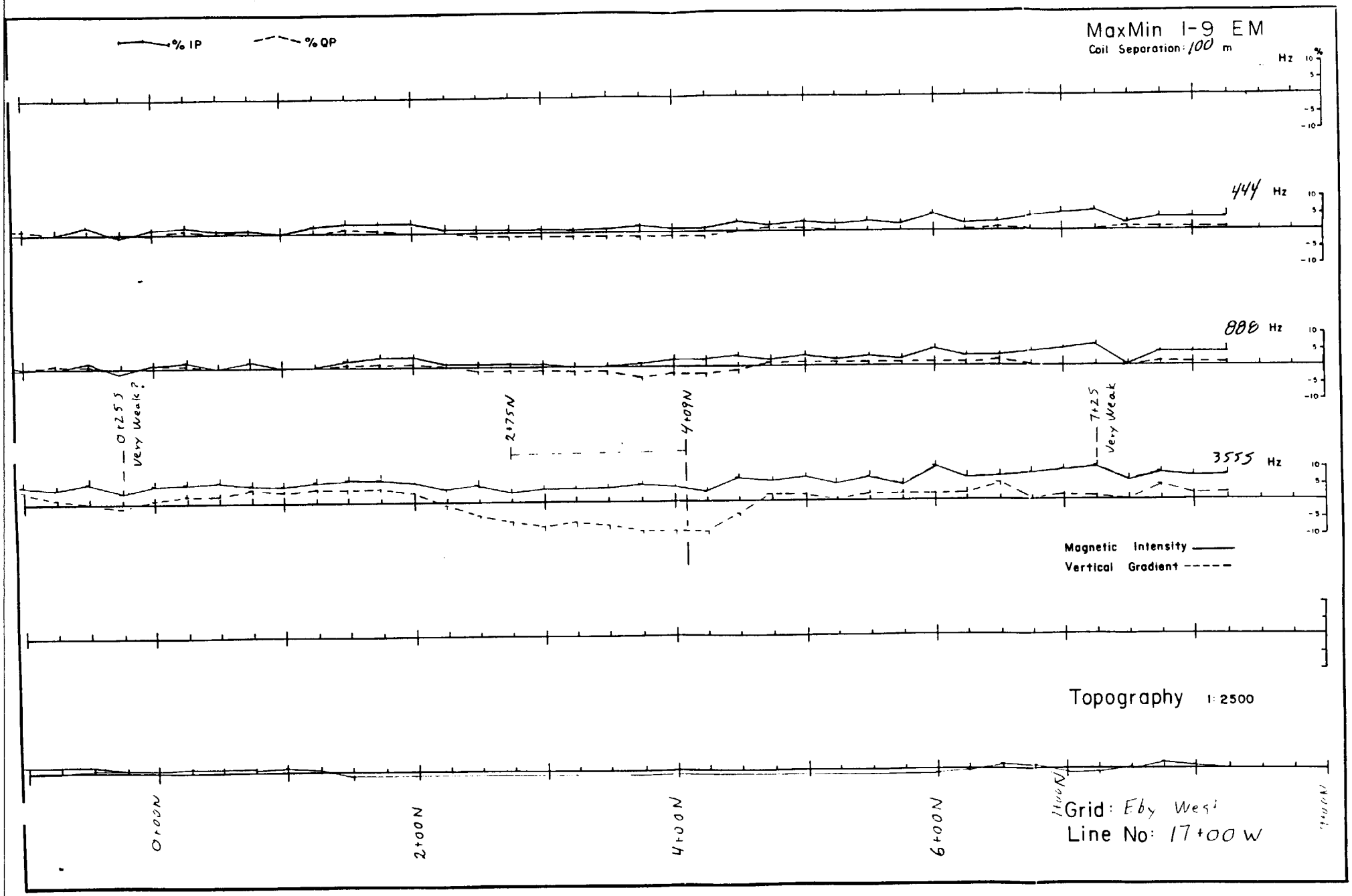

MaxMin I-9 EM
Coil Separation: 100 m
% IP
% QP
Hz
Hz
weak
IP?
028-S
880 Hz
3555 Hz
Magnetic Intensity
Vertical Gradient
Topography 1:2500
4+00S
3+00S
2+00S
1+00S
0+00
Grid:
Line No: 19+00 W
5

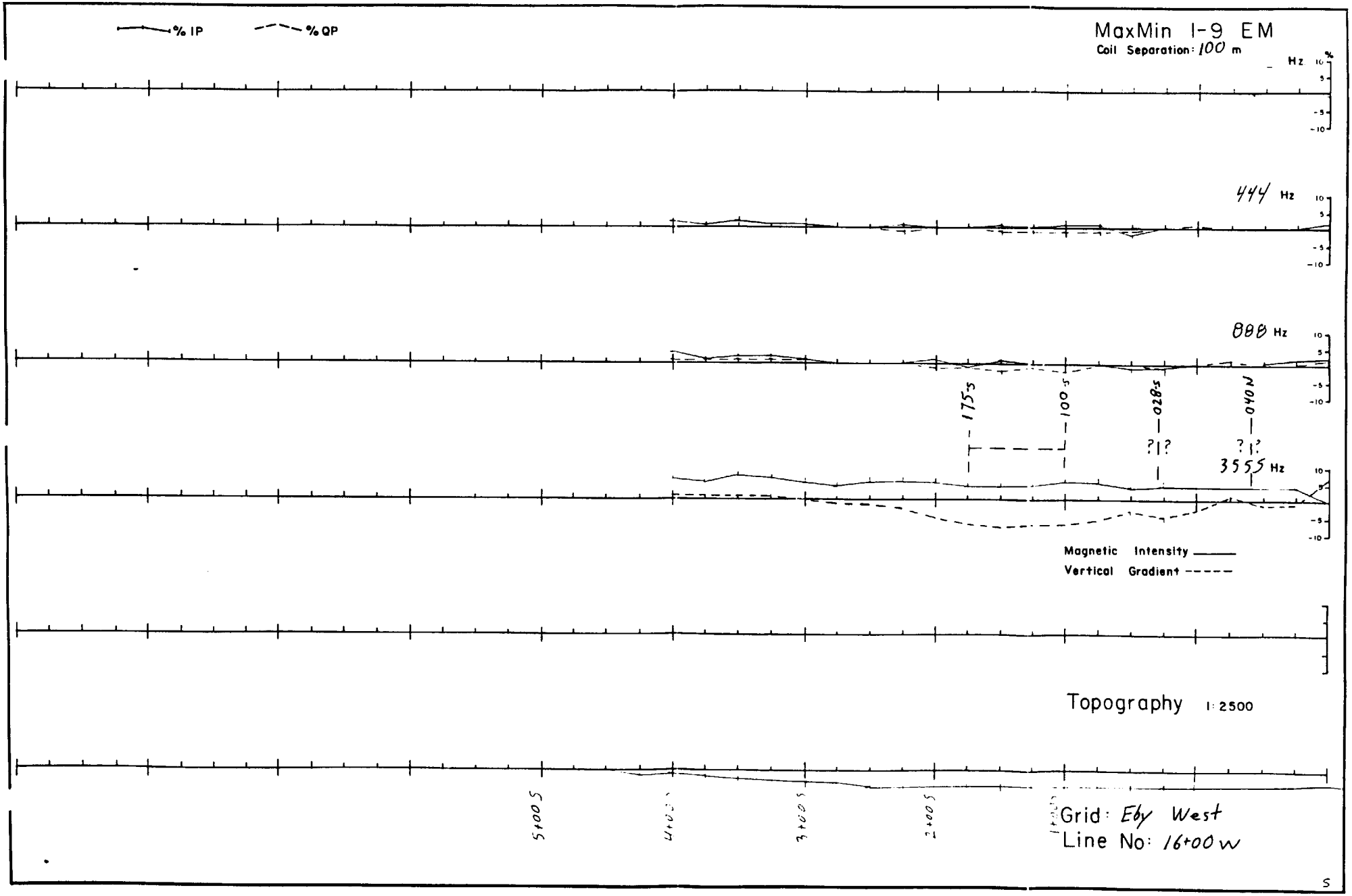

MaxMin I-9 EM
Coil Separation: 100 m
% IP
% QP
Hz
Hz
888 Hz
3555 Hz
4425N
Magnetic Intensity
Vertical Gradient
Topography 1:2500
1+00N
2+00N
3+00N
4+00N
5+00N
6+00N
7+00N
Grid: E by - West
Line No: 19+00W
N

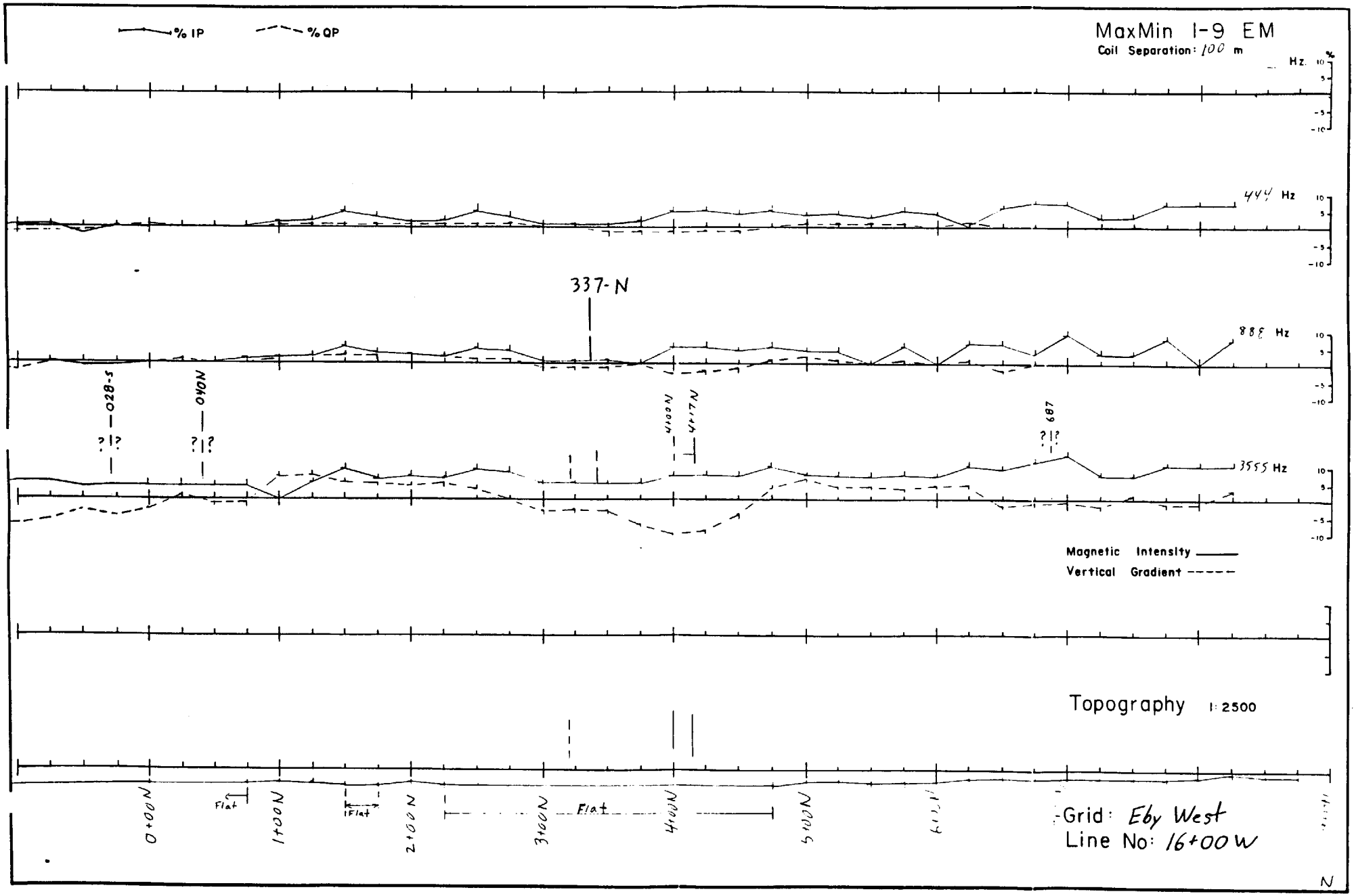

MaxMin I-9 EM
Coil Separation: 100 m
% IP
% QP
Hz
444 Hz
888 Hz
3555 Hz
Magnetic Intensity
Vertical Gradient
Topography 1:2500
4+00S
3+00S
2+00S
Grid:
Line No: 18+00W

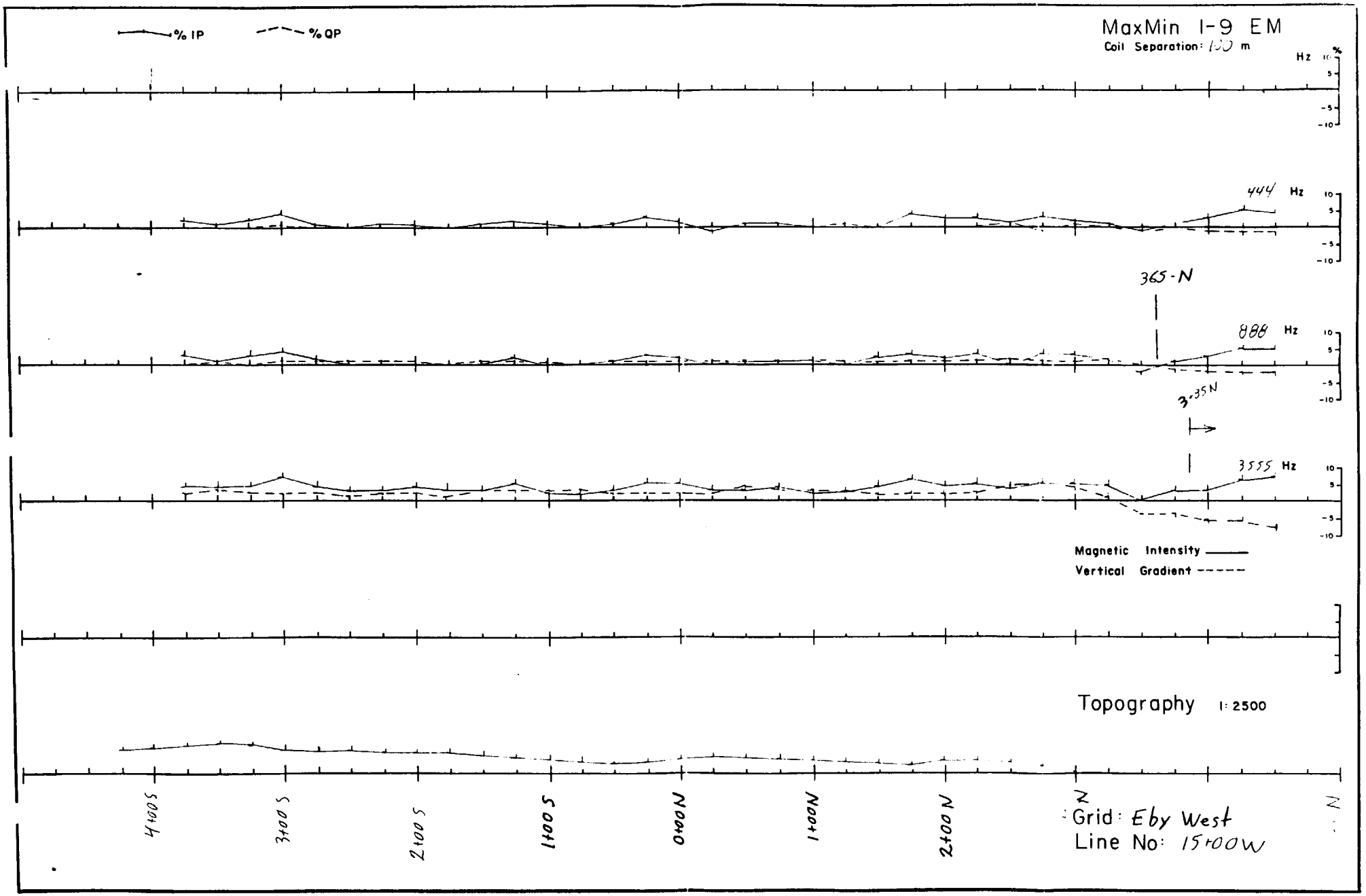

MaxMin I-9 EM
Coil Separation: 100 m
% IP
% QP
Hz.
444 Hz
888 Hz
3555 Hz
3184W
4+20N
Magnetic Intensity
Vertical Gradient
Topography 1:2500
0+00E
2+00N
4+00N
6+00N
Grid: Eby-west
Line No: 18+00W

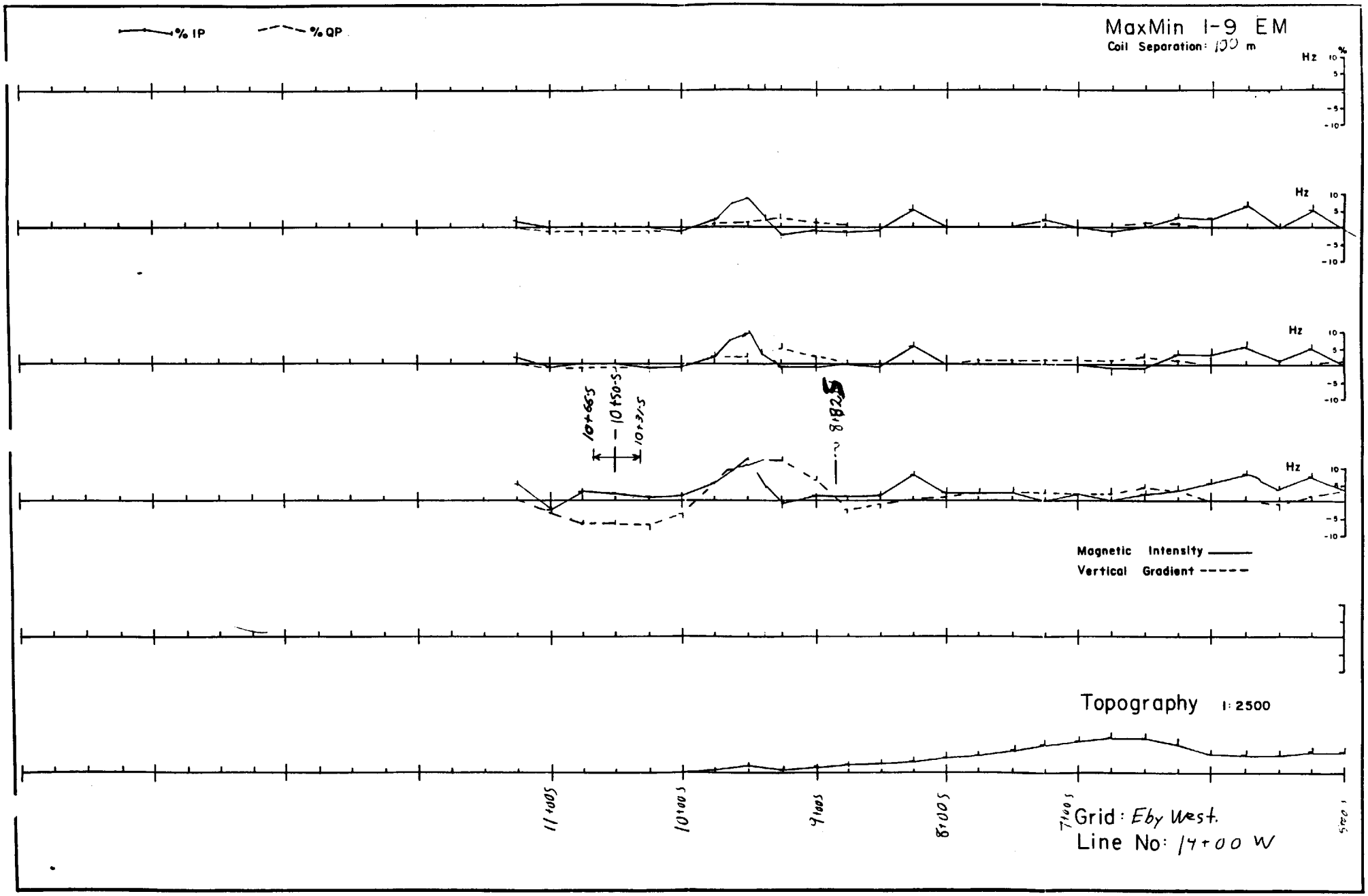

% IP
% QP
MaxMin I-9 EM
Coil Separation: 100 m
Hz
444 Hz
888 Hz
3555 Hz
Magnetic Intensity
Vertical Gradient
Topography 1:2500
1+00S
0+00
4+00S
3+00S
2+00S
Grid: Eby West
Line No: 17+00W

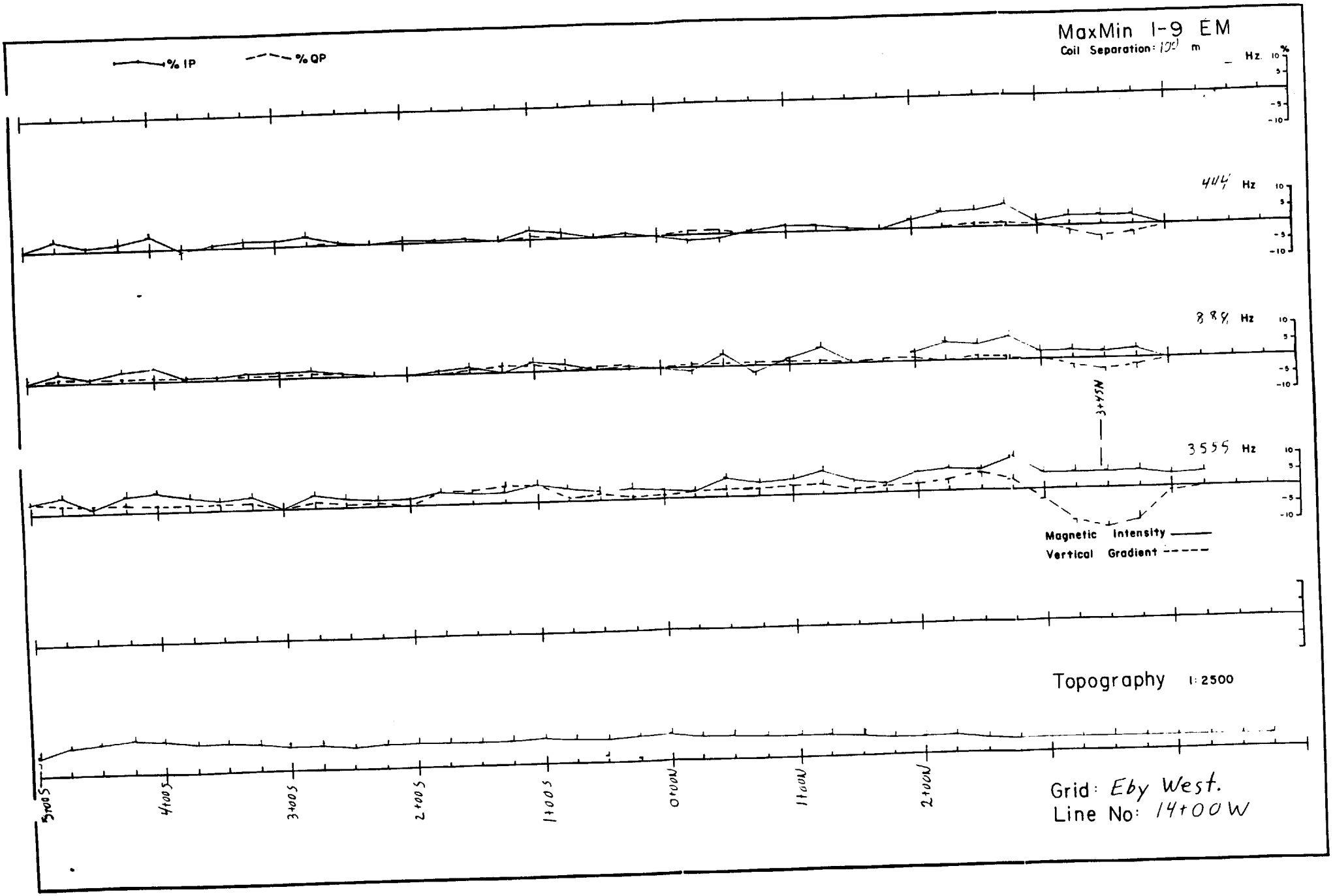

MaxMin I-9 EM
Coil Separation: 100 m
% IP
% QP
Hz
444 Hz
888 Hz
3555 Hz
0+25S
Very Weak?
2+75N
4+09N
7+25
Very Weak
Magnetic Intensity
Vertical Gradient
Topography 1:2500
0+00N
2+00N
4+00N
6+00N
Grid: Eby West
Line No: 17+00W

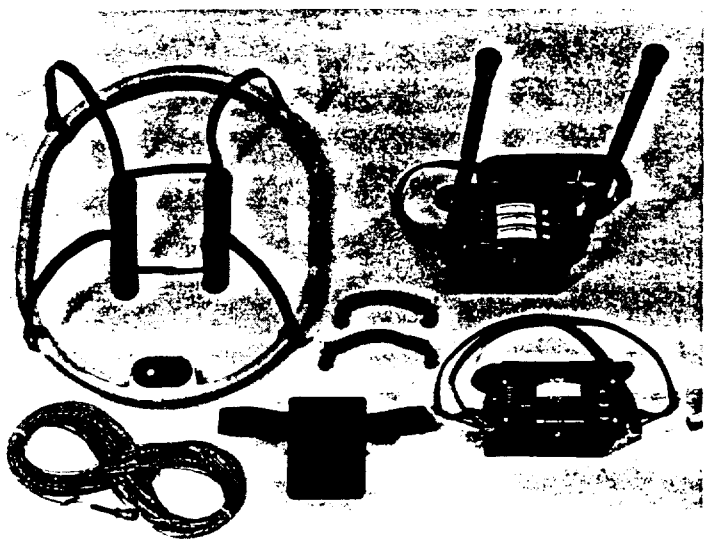

% IP
% QP
MaxMin I-9 EM
Coil Separation: 100 m
Hz
444 Hz
888 Hz
175S
100S
028S
040N
?!?
?!?
3555 Hz
Magnetic Intensity
Vertical Gradient
Topography 1:2500
5+00S
4+00S
3+00S
2+00S
Grid: Eby West
Line No: 16+00W
S

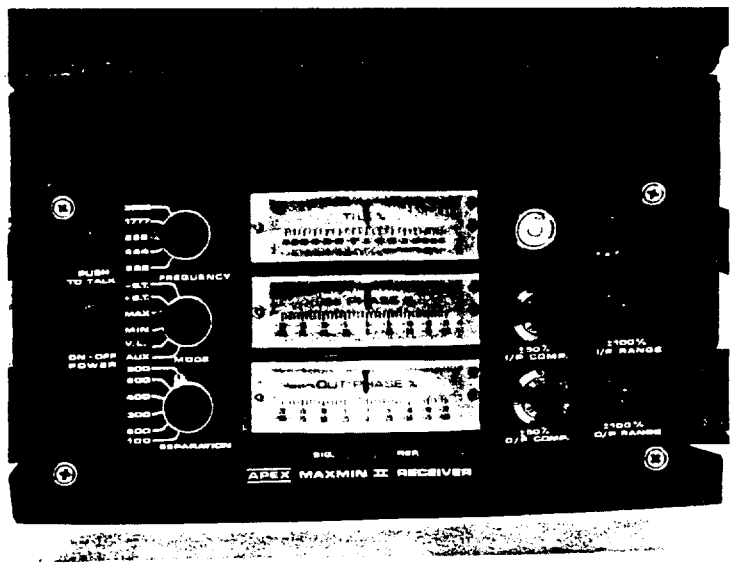

% IP
% QP
MaxMin I-9 EM
Coil Separation: 100 m
Hz.
444 Hz
337-N
888 Hz
028-S
040N
687
3555 Hz
Magnetic Intensity
Vertical Gradient
Topography 1:2500
0+00N
1+00N
2+00N
3+00N
4+00N
5+00N
Flat
Flat
Flat
Grid: Eby West
Line No: 16+00W
N


% IP
% QP
MaxMin I-9 EM
Coil Separation: 150 m
Hz
%
444 Hz
365-N
888 Hz
3555 Hz
Magnetic Intensity
Vertical Gradient
Topography 1:2500
4+00S
3+00S
2+00S
1+00S
0+00
1+00N
2+00N
N
Grid: Eby West
Line No: 15+00W


% IP
% QP
MaxMin I-9 EM
Coil Separation: 100 m
Hz
10
5
-5
-10
%
10+65S
10+50S
10+35S
10+18S
Magnetic Intensity
Vertical Gradient
Topography 1:2500
11+00S
10+00S
9+00S
8+00S
7+00S
Grid: Eby West.
Line No: 14+00 W


MaxMin I-9 EM
Coil Separation: 100 m
% IP
% QP
Hz.
444 Hz
888 Hz
3555 Hz
3+45N
Magnetic Intensity
Vertical Gradient
Topography 1:2500
5+00S
4+00S
3+00S
2+00S
1+00S
0+00N
1+00N
2+00N
Grid: Eby West.
Line No: 14+00W





SPECIFICATIONS :

Frequencies: 222, 444, 888, 1777 and 3555 Hz.

Modes of Operation:
- MAX: Transmitter coil plane and receiver coil plane horizontal (Max-coupled; Horizontal-loop mode). Used with reference cable.
- MIN: Transmitter coil plane horizontal and receiver coil plane vertical (Min-coupled mode). Used with reference cable.
- V.L. : Transmitter coil plane vertical and receiver coil plane horizontal (Vertical-loop mode). Used without reference cable, in parallel lines.

Coil Separations: 25, 50, 100, 150, 200 & 250 m (MMII) or 100, 200, 300, 400, 600 and 800 ft. (MMIIF).
Coil separations in V.L. mode not restricted to fixed values.

Parameters Read:
- In-Phase and Quadrature components of the secondary field in MAX and MIN modes.
- Tilt-angle of the total field in V.L. mode.

Readouts:
- Automatic, direct readout on 90 mm (3.5") edgewise meters in MAX and MIN modes. No nulling or compensation necessary.
- Tilt angle and null in 90 mm edgewise meters in V.L. mode.

Scale Ranges:
- In-Phase: ±20%, ±100% by push-button switch.
- Quadrature: ±20%, ±100% by push-button switch.
- Tilt: ±75% slope.
- Null (V.L.): Sensitivity adjustable by separation switch.

Readability: In-Phase and Quadrature: 0.25 % to 0.5 % ; Tilt: 1 %.

Repeatability: ±0.25 % to ±1% normally, depending on conditions, frequencies and coil separation used.

Transmitter Output:
- 222 Hz : 220 Atm^2
- 444 Hz : 200 Atm^2
- 888 Hz : 120 Atm^2
- 1777 Hz : 60 Atm^2
- 3555 Hz : 30 Atm^2

Receiver Batteries: 9V trans. radio type batteries (4). Life: approx. 35 hrs. continuous duty (alkaline, 0.5 Ah), less in cold weather.

Transmitter Batteries: 12V 6 Ah Gel-type rechargeable battery. (Charger supplied).

Reference Cable: Light weight 2-conductor teflon cable for minimum friction. Unshielded. All reference cables optional at extra cost. Please specify.

Voice Link: Built-in intercom system for voice communication between receiver and transmitter operators in MAX and MIN modes, via reference cable.

Indicator Lights: Built-in signal and reference warning lights to indicate erroneous readings.

Temperature Range: -40°C to +60°C (-40°F to +140°F).

Receiver Weight: 6 kg (13 lbs.)

Transmitter Weight: 13 kg (29 lbs.)

Shipping Weight: Typically 60 kg (135 lbs.), depending on quantities of reference cable and batteries included. Shipped in two field/shipping cases.

Specifications subject to change without notification.

APEX PARAMETRICS LIMITED
BOX 818, R.R. NO.1, UXBRIDGE, ONTARIO, CANADA L0C 1K0

Phone: (416) 640-6102 852-5875 Cables: APEXPARA TORONTO Telex: 06-966625 APEXPARA UXB

ENVI-MAG Environmental Magnetometer/Gradiometer

Locating Buried Drums and Tanks?

The NEW ENVI-MAG is the solution to this environmental problem. ENVI-MAG is an inexpensive, lightweight, portable "WALKMAG" which enables you to survey large areas quickly and accurately.

ENVI-MAG is a portable, proton precession magnetometer and/or gradiometer, for geotechnical, archaeological and environmental applications where high production, fast count rate and high sensitivity are required. It may also be used for other applications, such as mineral exploration, and may be configured as a total-field magnetometer, a vertical gradiometer or as a base station.

The ENVI-MAG

- easily detects buried drums to depths of 10 feet or more
- more sensitive to the steel of a buried drum than EM or radar
- much less expensive than EM or radar
- survey productivity much higher than with EM or radar

Main features include:

- select sampling rates as fast as 2 times per second
- "WALKMAG" mode for rapid acquisition of data
- large internal memory, expandable to 200,000 readings
- easy to read, large LCD screen displays data both numerically and graphically
- ENVIMAP software for processing and mapping data

ENVI-MAG comprises several basic modules; a lightweight console with a large screen alphanumeric display and high capacity memory, a staff mounted sensor and sensor cable, rechargeable battery and battery charger, RS-232 cable and ENVIMAP processing and mapping software.

For gradiometry applications an upgrade kit is available, comprising an additional processor module for installation in the console, and a second sensor with a staff extender.



ENVI-MAG Proton Magnetometer in operation

For base station applications a Base Station Accessory Kit is available so that the sensor and staff may be converted into a base station sensor.

Features and Benefits

"WALKMAG" Magnetometer/Gradiometer

The "WALKMAG" mode of operation (sometimes known as "Walking Mag") is user-selectable from the keyboard. In this mode, data is acquired and recorded at the rate of 2 readings per second as the operator walks at a steady pace along a line. At desired intervals, the operator "triggers" an event marker by a single key stroke, assigning coordinates to the recorded data.

True Simultaneous Gradiometer

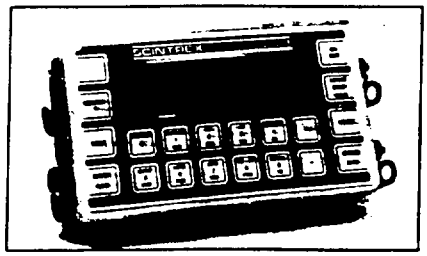
An optional upgrade kit is available to configure ENVI-MAG as a gradiometer to make true, simultaneous gradiometer measurements. Gradiometry is useful for geotechnical and archaeological surveys where small near surface magnetic targets are the object of the survey.

Selectable Sampling Rates

0.5 second, 1 second and 2 second reading rates user selectable from the keyboard.

Large-Key Keypad

The large-key keypad allows easy access for gloved-hands in cold-weather operations. Each key has a multi-purpose function.



Front panel of ENVI-MAG showing a graphic profile of data and large-key keypad

Large Capacity Memory

ENVI-MAG with standard memory stores up to 28,000 readings of total field measurements, 21,000 readings of gradiometry data or 151,000 readings as a base station. An expanded memory option is available which increases this standard capacity by a factor of 5.

Easy Review of Data

For quality of data and for a rapid analysis of the magnetic characteristics of the survey line, several modes of review are possible. These include the measurements at the last three stations, the ability to scroll through any or all previous readings in memory, and a graphic display of the previous data as profiles, line by line. This feature is very useful for environmental and archaeological surveys.

Highly Productive

The "WALKMAG" mode of operation acquires data rapidly at close station intervals, ensuring high-definition results. This increases survey productivity by a factor of 5 when compared to a conventional magnetometer survey.

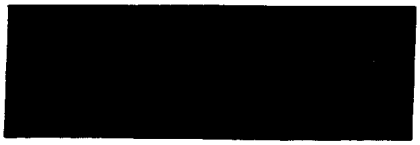
"Datacheck" Quality Control of Data

"Datacheck" provides a feature wherein at the end of each survey line, data may be reviewed as a profile on ENVI-MAG's screen. Datacheck confirms that the

allows the user to note the magnetic relief (anomaly) on the line.

Large Screen Display

"Super-Twist" 64 x 240 dot (8 lines x 40 characters), LCD graphic screen provides good visibility in all light conditions. A display heater is optionally available for low-temperature operations below 0°C.



Close-up of the ENVI-MAG screen showing data presented after each reading

Interactive Menus

The set-up of ENVI-MAG is menu-driven, and minimizes the operator's learning time, and on-going tasks.



Cose-up of display of ENVI-MAG showing interactive set-up menu

Battery Charger

An "off-the-shelf" lead-acid battery and charger are provided as standard. The low-cost "Camcorder" type battery is available from electronic parts distributors everywhere.

HELP-Line Available

Purchasers of ENVI-MAG are provided with a HELP-Line telephone number to call in the event assistance is needed with an application or instrumentation problem.

ENVIMAP Processing and Mapping Software

Supplied with ENVI-MAG, and custom designed for this purpose, is easy-to-use, very user-friendly, menu driven data processing and mapping software called ENVIMAP. This unique software appears to the user to be a single program, but is in fact a sequence of separate programs, each performing a specific task. Under the menu system, there are separate programs to do the following:

a) read the ENVI-MAG data and reformat it into a standard compatible with the ENVIMAP software
b) grid the data into a standard grid format
c) create a vector file of posted values
with line and baseline identification that allows the user to add some title information and build a suitable surround
d) contour the gridded data
e) autoscale the combined results of the posting/surround step and the contouring step to fit on a standard 8.5 ins. wide dot-matrix printer
f) rasterize and output the results of step e) to the printer

ENVIMAP is designed to be as simple as possible. The user is required to answer a few basic questions asked by ENVIMAP, and then simply toggles "GO" to let ENVIMAP provide default parameters for the making of the contour map. The user can modify certain characteristics of the output plot. ENVIMAP'S menu system is both keyboard and mouse operable. HELP screens are integrated with the menu system so that HELP is displayed whenever the user requests it.

Options Available

- True simultaneous gradiometer upgrade
- Base station upgrade
- Display heater for low temperature operations
- External battery pouch

Specifications

Total Field Operating Range
20,000 to 100,000 nT (gammas)

Total Field Absolute Accuracy
+/- 1nT

Tuning
Fully solid state. Manual or automatic, keyboard selectable

Cycling (Reading) Rates
0.5, 1 or 2 seconds, up to 9999 seconds for base station applications, keyboard selectable

Sensitivity
0.1 nT at 2 second sampling rate

Gradiometer Option
Includes a second sensor, 20 inch (½m) staff extender and processor module

"WALKMAG" Mode
0.5 second for walking surveys, variable rates for hilly terrain

Digital Display
LCD "Super Twist", 240 x 64 dots graphics, 8 line x 40 characters alphanumerics

Display Heater
Thermostatically controlled, for cold weather operations

Keyboard Input
17 keys, dual function, membrane type

Notebook Function
32 characters, 5 user-defined MACRO's for quick entry

Standard Memory
Total Field Measurements: 28,000 readings
Gradiometer Measurements: 21,000 readings
Base Station Measurements: 151,000 readings

Expanded Memory
Total Field Measurements: 140,000 readings
Gradiometer Measurements: 109,000 readings
Base Station Measurements: 750,000 readings

Real-Time Clock
Records full date, hours, minutes and seconds with 1 second resolution, +/- 1 second stability over 12 hours

Digital Data Output
RS-232C interface, 600 to 57,600 Baud, 7 or 8 data bits, 1 start, 1 stop bit, no parity format. Selectable carriage return delay (0-999 ms) to accommodate slow peripherals. Handshaking is done by X-on/X-off

Analog Output
0 - 999 mV full scale output voltage with keyboard selectable range of 1, 10, 100, 1,000 or 10,000 nT full scale

Power Supply
Rechargeable "Camcorder" type, 2.3 Ah, Lead-acid battery.

12 Volts at 0.65 Amp for magnetometer, 1.2 Amp for gradiometer,

External 12 Volt input for base station operations

Optional external battery pouch for cold weather operations

Battery Charger
110 Volt - 230 Volt, 50/60 Hz

Operating Temperature Range
Standard 0° to 60°C
Optional -40°C to 60°C

Dimensions
Console - 10 x 6 x 2.25 inches (250 mm x 152 mm x 55 mm)
T.F. sensor - 2.75 inches dia. x 7 inches (70 mm x 175 mm)
Grad. sensor and staff extender - 2.75 inches dia. x 26.5 inches (70 mm x 675 mm)
T.F. staff - 1 inch dia. x 76 inches (25 mm x 2 m)

Weight
Console - 5.4 lbs (2.45 kg) with rechargeable battery
T. F. sensor - 2.2 lbs (1.15 kg)
Grad. sensor - 2.5 lbs (1.15 kg)
Staff - 1.75 lbs (0.8 kg)

SCINTREX

Head Office
222 Snidercroft Road
Concord, Ontario, Canada L4K 1B5
Telephone: (905) 669-2280
Fax: (905) 669-6403 or 669-5132
Telex: 06-964570

In the USA:
Scintrex Inc.
85 River Rock Drive
Unit 202
Buffalo, New York 14207
Telephone: (716) 298-1219
Fax: (716) 298-1317

assessment
Credits
-white prints
E64-C17C

GEOSCIENCE ASSESSMENT OFFICE
JAN 23 1998
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$35 ~~$70~~ ERY w
$15 otto

Prints of EM
Mylar done at
MNDM
claim
registration

$50.00

AUTH 484754

Cardholder will pay card issuer above
amount pursuant to cardholder agreement

Signature: Betty Peterson

$50.00

THANK YOU

fuel
equipment

INVOICE

From David Robinson
Box 218
Swastika, Ontario
P0K 1T0

To Doug Robinson Consulting
Box 218
Swastika, Ontario
P0K 1T0

June 09, 1997-June 23, 1997.
Eby and Otto Townships.
Hand plotting MaxMin Profiles on mylar.

Date	Hours
June 9	8
10	6
11	2
12	1
13	4
14	3
15	5
16	4
17	5
18	4
19	5
23	2
TOTAL	49

6.125 days @ 150/day $918.75

20% Amikougami Creek Project Otto Tp.
80% Eby West project Eby Tp.

otto 183.75
Eby. 735.00

Total Invoice $918.75

Sincerely

David Robinson
August 15, 1997

Ontario 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)
W9880.00041
Assessment Files Research Imaging

42A01SE2003 2.18088 EBY 900

ıubsection 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, ssesment work and correspond with the mining land holder. Questions about this ɔrthern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury,

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

2.18088

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

Name Douglas Robinson	Client Number 222886
Address Box 218 Swastika Ontario P0K-1T0	Telephone Number 705-642-9153
	Fax Number
Name	Client Number
Address	Telephone Number
	Fax Number

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 EM, Mag Terrain Measurement Report Supervision Drafting Mag done by two Man Crew mostly the Winter

Dates Work Performed From 04 (Day) 05 (Month) 95 (Year) To 15 (Day) 08 (Month) 97 (Year)

Global Positioning System Data (if available) start date = start of line cutting.

Township/Area Eby

M or G-Plan Number M-345

Office Use	
Commodity	
Total $ Value of Work Claimed	14,500
NTS Reference	
Mining Division	Larder Lake
Resident Geologist District	

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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 Douglas Robinson	Telephone Number 705-642-9153
Address Box 218 Swastika, Ontario P0K-1T0	Fax Number
Name	Telephone Number
Address	Fax Number
Name	Telephone Number
Address	Fax Number

RECEIVED LARDER LAKE MINING DIVISION JAN 23 1998 11:04

4. Certification by Recorded Holder or Agent

I, Douglas Robinson (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 Douglas Robinson		Date Jan 22, 1998
Agent's Address Box 218 Swastika Ont P0K-1T0	Telephone Number 705-642-9153	Fax Number

0241 (03/97)

Deemed April 22/98

14500/13=

4500

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.

W9880.00041

	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	1205784	1	1155	400		755
2	1205789	2	2230	800		1430
3	1205781	1		+ 400		
4	1205782	1		+ 400		
2 5	1205783	2	2230	800		1430
1 6	1205787	1	1155	400		755
1 7	1205788	1	1155	400	ORR 625	130
1 8	1205790	2	1155	800	355	
9	1205791	2		+ 800		
10	1205792	2		+ 800		
11	1205793	2		+ 800		
2 12	1205794	2	2230	800	1430	
2 13	1205795	2	2035	800	1235	
1 14	1205796	2	1155	800	355	
15	1205798	2		+ 800		
13	Column Totals		14500	10000	4000	4500

I, Douglas Robinson (Print Full Name), 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.

Signature of Recorded Holder or Agent Authorized in Writing	Date
Douglas Robinson	January 22/98

6. Instruction 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):

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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

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LARDER LAKE
MINING DIVISION
JAN 22 1998
11:10 AM

Deemed Approved Date	Date Notification Sent
Date Approved	Total Value of Credit Approved
Approved for Recording by Mining Recorder (Signature)	

0241 (03/97)

Eby W -

Ontario Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use): W9880.00041

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, the 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 the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

2.18088

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
EM 2 frequencies Max Min.	24.15 Km	250	6038
Terrain Measurement	24.15 km		855.
Mag	30.925	~~3092~~ 100	3092
Report	9 days	285	2565.00
Supervision & Logistics	4 days	285	1100
Drafting Sept 15/97	see Invoice		~~1100~~ 735
Associated Costs (e.g. supplies, mobilization and demobilization).			
Batteries for MaxMin			15
Battery Supplies and field supplies			50
Transportation Costs	167 km	~~167 km~~ $.30	50
Food and Lodging Costs			
Total Value of Assessment Work			14500.00

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JAN 23 1998
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RECEIVED
LARDER LAKE
MINING DIVISION
JAN 22 1998
11:10 AM

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 × 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, Douglas Robinson (please print full name), 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 Douglas Robinson (recorded holder, agent, or state company position with signing authority) I am authorized to make this certification.

Signature	Date
Douglas Robinson	Jan 22/1998

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Ontario

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

Telephone: (888) 415-9846
Fax: (705) 670-5881

Visit our website at:
www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

June 5, 1998

DOUGLAS RAYMOND ROBINSON
24 VICTORIA AVENUE
BOX 218
SWASTIKA, ONTARIO
P0K-1T0

Dear Sir or Madam:

Submission Number: 2.18088

Subject: Transaction Number(s):		**Status**
	W9880.00041	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 Steve Beneteau by e-mail at benetest@epo.gov.on.ca or by telephone at (705) 670-5855.

Yours sincerely,

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

Correspondence ID: 12382

Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.18088

Date Correspondence Sent: June 05, 1998 **Assessor:** Steve Beneteau

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9880.00041	1205784	EBY	Approval After Notice	June 04, 1998

Section:
14 Geophysical EM
14 Geophysical MAG

Correspondence to:
Resident Geologist
Kirkland Lake, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):
DOUGLAS RAYMOND ROBINSON
SWASTIKA, ONTARIO

Correspondence ID: 12382

Distribution of Assessment Work Credit

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

Date: June 05, 1998

Submission Number: 2.18088

Transaction Number: W9880.00041

Claim Number	Value Of Work Performed
1205784	898.00
1205789	1,734.00
1205783	1,734.00
1205787	898.00
1205788	898.00
1205790	898.00
1205794	1,734.00
1205795	1,582.00
1205796	898.00
Total: $	11,274.00

Correspondence ID: 12382

TRIM LINE

Grenfell Twp. M.351

Burt Twp. M.334

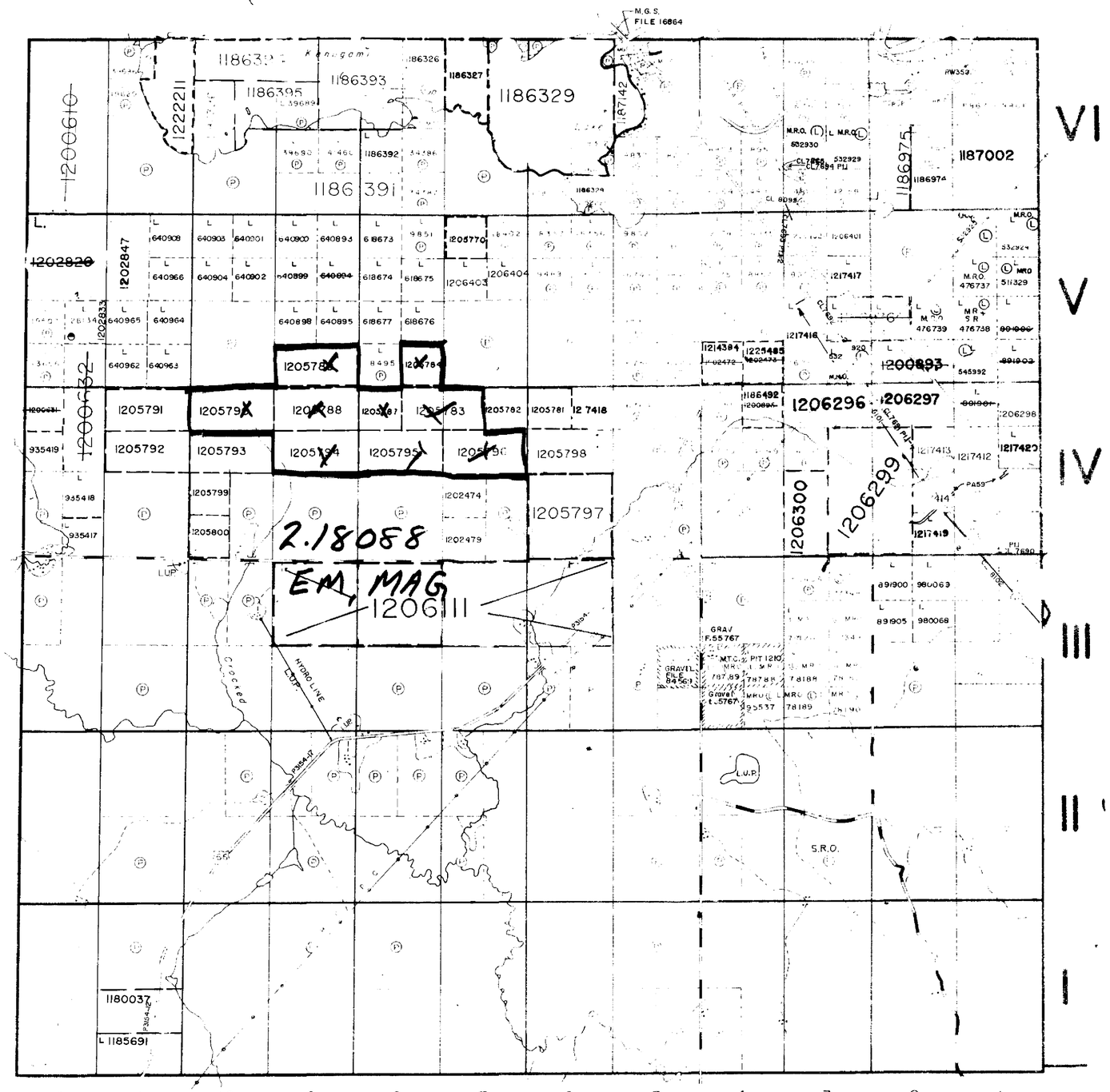
Otto Twp. M.379

Blain Twp. M.418

EBY TWP.

M.345

M.342



THE TOWNSHIP OF

EBY

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE 1-INCH=40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	● OR S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C.

NOTES

400' surface rights reservation along the shores of lakes and rivers

AREAS WITHDRAWN FROM STAKING

DATE OF ISSUE

MAR 2 5 1998

Surface rights withdrawn under Sec. 36, Mining Act R.S.O. 1990, ORDER NO. W-01/91/ONT (Trans Canada Pipeline Right of Way and Buffer Zone particularly 40.25 meters or 132 ft. on either side of centre line of right of way)

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

PLAN NO. M-345

MINISTRY OF NORTHERN DEVELOPMENT AND MINES

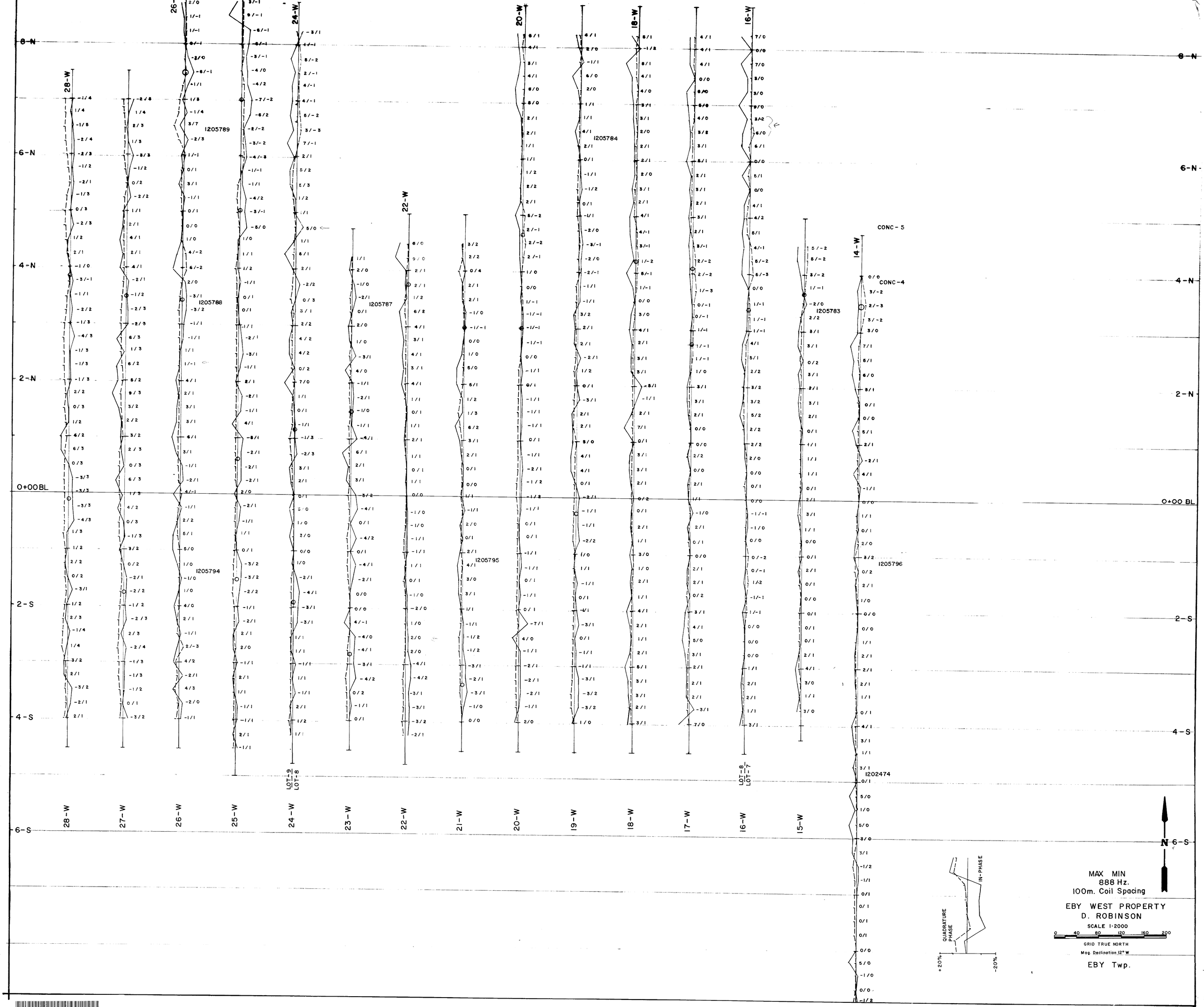
COPY OF THIS MYLAR ARCHIVED APR.27/92
ARCHIVED JANUARY 26, 1995
ARCHIVED ON JUNE 01/95
ARCHIVED JULY 9, 1996

K. Kalanda

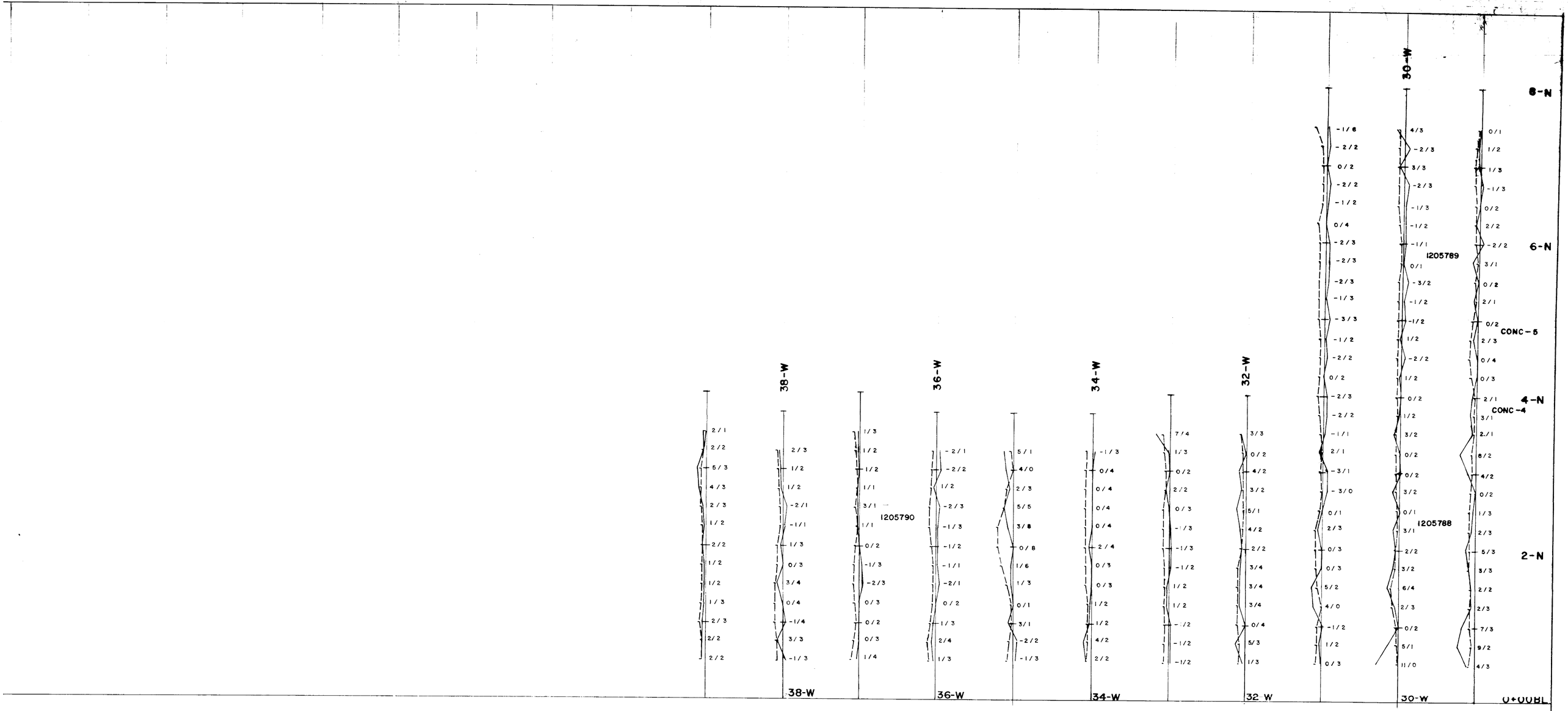
42A01SE2003 2.18088 EBY 200

Rec'd Jan. 25/89

TRIM LINE



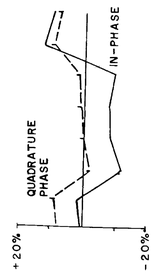
42A01SE2003 2.18088 KNY 210



LOT-12
LOT-11

LOT-11
LOT-10

LOT-10
LOT-9



N

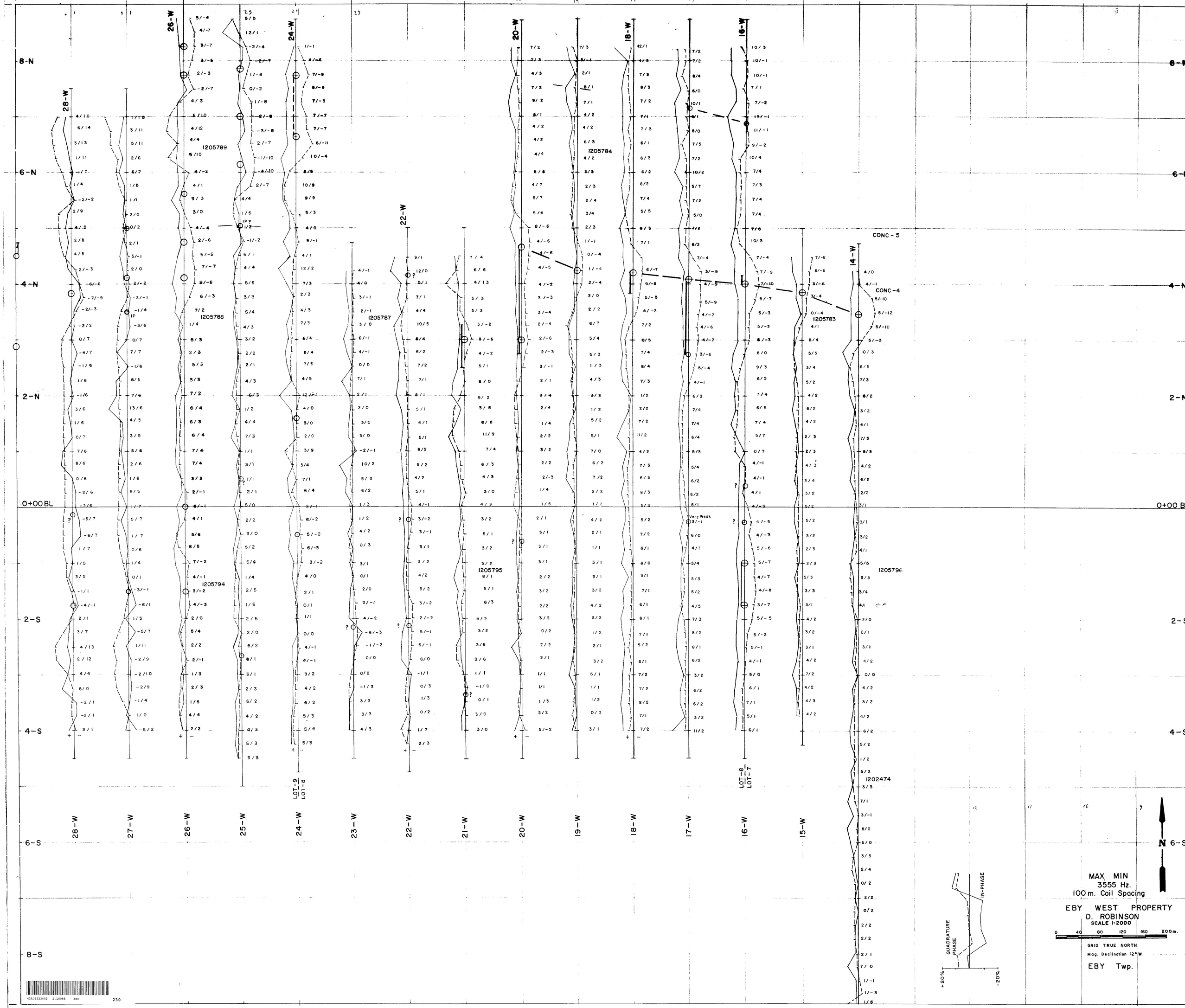
MAX MIN
888 Hz.
100m. Coil Spacing

EBY WEST PROPERTY
D. ROBINSON
SCALE 1:2000

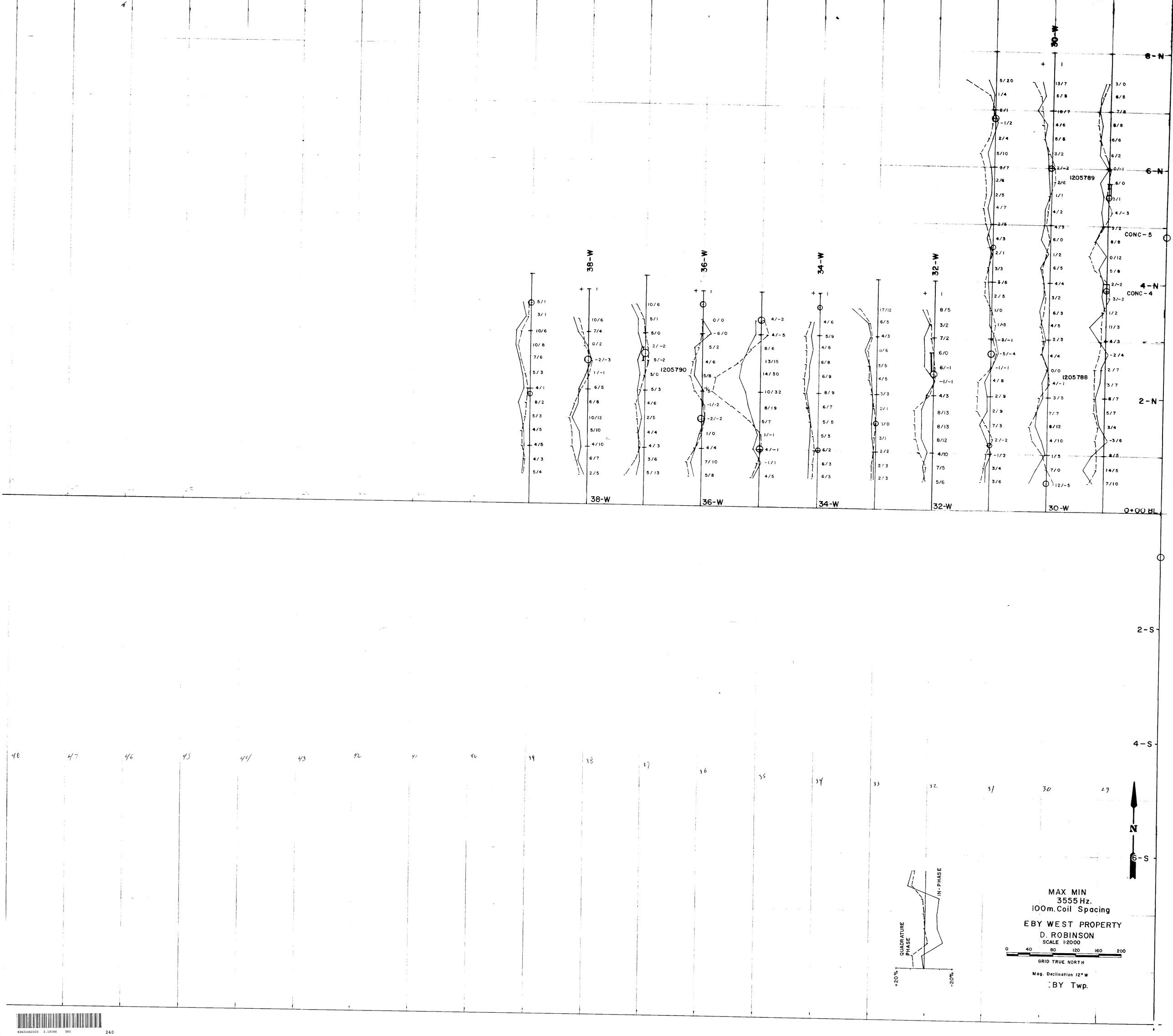
0 40 80 120 160 200m.

GRID TRUE NORTH
Mag. Declination 12° W
EBY Twp.

42A01B2003 2.18388 EBY 220



42A01SE2003 2.16088 xmr



42A01SE2003 2.18086 EBY 240