LOCATION: Areas: Lower Detour, Sunday & Hopper Lakes.	
NTS: 32E/13NW NE, 32L/4SE	**M.'G NO:** G-1647/G-1677/G-1636
COMPANY: Westmin Resources Ltd.	
TWP.' AREA: Lower Detour L., Sunday L. & Hopper Lake Areas.	
TIMMINS FILE: T-2331	**TORONTO FILE:** 63.4153/OM82-5-C-43
DATE REC'D.: Aug 28/84	Diane Draper
TYPE OF WORK: Rept., DDH	**DATE OF WORK:** 1982

Report

on

1982 Field Work

Detour Gold Project

Ontario (N.T.S.32E13/L4)

C. Rockingham

September, 1982.

C. J. Rockingham, M.Sc.

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Tables

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1	Diamond Drill Logs and Assays
2	Maps of Max-Min 888 Hz Surveys
3	Maps of magnetometer Surveys
4	Maps of VLF-EM Surveys
5	Repeatability of Magnetic Data

Summary and Conclusions:

The 1982 Detour gold programme consisted of 98.5 km of line-cutting, 118.7 km of horizontal loop EM (150 m coil separation), 127 km of magnetometer survey, 32.3 km of VLF-EM survey, 2070.65 m of diamond drilling, and 253 m of reverse circulation till sampling. This constitutes the first half of the work programme recommended in 1981 (Rockingham, 1981).

The results of this work indicate that the diamond drill testing of isolated INPUT conductors should be continued in 1983. This will have two purposes; firstly this may discover a gold deposit that is associated with a Max-Min II conductor, secondly it will help establish the geological setting of the property and provide constraints on the interpretation of the regional and property scale magnetic surveys.

Recommendations: (Table 1)

Detour-Lower Detour Claim Block

1) A grid should be cut over the entire claim block and surveyed by Max-Min II (Horizontal loop EM) and magnetometer. This will amount to approximately 330 km of line and will cost

330 km of line-cutting	@ $175/km	=	$57,750
330 km of magnetometer	@ $100/km	=	$33,000
330 km of Max-Min II	@ $175/km	=	$57,750

2) A total of 1700 m of diamond drilling should adequately test the remaining isolated INPUT conductors and the postulated source of the gold in basal till anomalies in Area 1 (Nutter, 1982). This could be staged over one or two years. At an estimated cost of $110 - $120/m this would cost approximately $200,000.

3) A geological mapping programme should be carried out to tie in all outcrops to the grid and gain assessment credit for both the line-cutting and the mapping. This will cost $15,000 - $20,000.

4) The 38 claims north and east of Lower Detour Lake should be allowed to expire (Fig. 3).

Nash Creek Claim Block

1) INPUT anomaly 18 should be tested by one diamond drill hole at an estimated cost of $20,000.

2) The 65 claims west of anomaly 18 should be allowed to expire (Fig. 3).

Sunday Lake Claim Block

1) A block of 24 claims (Fig. 3) adjacent to the Quebec boundary has sufficient assessment credits to be taken to lease. The remainder of the claim block should have a picket line grid cut prior to geophysical surveys, being carried out. Estimated cost for the line cutting, magnetometer survey, VLS survey and geological mapping is $25,000.

Tie on Claim Block

1) A pace and compass grid should be established and surveyed with VLF-EM and magnetometer. Estimated cost is $3,000.

Table 1 Budget Estimate 1983 Recommended Programme

Claim Block	Line-Cutting	Magnetometer Survey	VLF-EM Survey	Max-Min II Survey	Geological Mapping	Diamond Drilling	Total
Detour	$57,750 330 km	$33,000 330 km		$57,750 330 km	$15,000 -	$200,000 ~ 1700 m	$363,500
Nash Creek	-	-	-	-	-	$ 20,000 150 m	$ 20,000
Tie On	-	$1,500 14.5 km	$1,500 14.5 km	-	-	-	$ 3,000
Sunday Lake	$14,000 80 km	$4,000 80 km	$4,000	-	$3,000	-	$ 25,000
							$411,500

*Administration, salaries, travel, assays, fuel, groceries, etc. to be added.

$117.65/m used as cost for drilling.

Total estimated budget ~ $500,000

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LOCATION MAP

DETOUR PROJECT

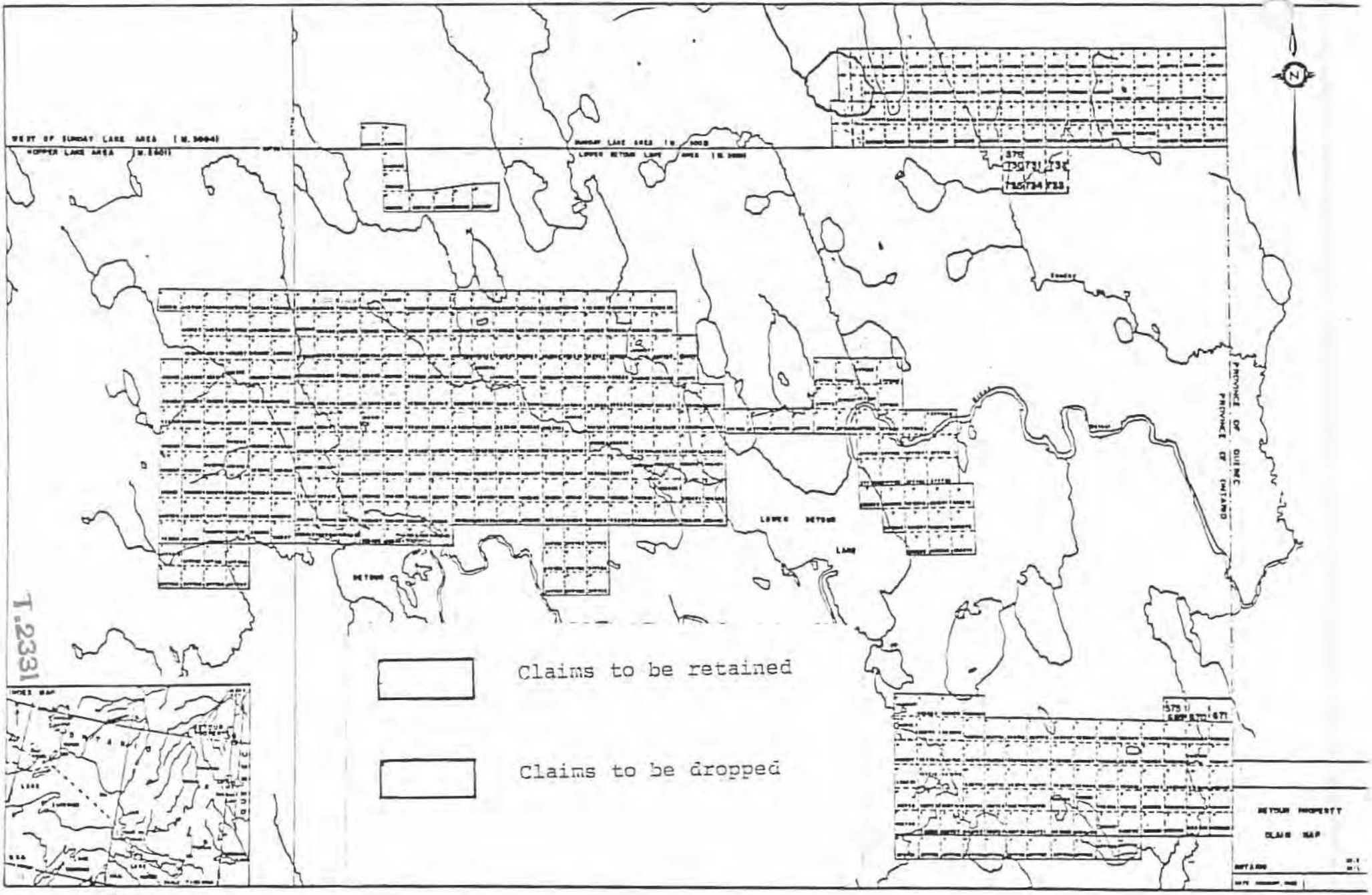
0 100 200 300

MILES

Scale: 1: 9,400,000.00

T 2331

N
Selbaie
Gravel Road to La Sarre (via Villebois)
0 5 10km
Gravel road to La Sarre
Lac Gagnon
Lac Quesagami
Gigmac-Massicotte
Riv. Turgeon
Nash Creek
Sunday Lk.
Detour-Lower Detour
Detour
Winter Road to La Sarre
Q.
ONT.
T.2331
WESTMIN
Westmin Resources Limited
EASTERN CANADA MINING DIVISION
Detour and Turgeon Claims with respect to Detour and Selbaie deposits Figure 2
Work by
Date Oct. 8,1982
Scale 1:250,000
NTS 32-E,L


Claims to be retained
Claims to be dropped
T.2331
PROVINCE OF QUEBEC
PROVINCE OF ONTARIO
LOWER RETOUR LAKE
RETOUR PROPERTY
CLAIM MAP

Location and Access:

The Detour gold project is centered about latitude 49°47'N, longitude 79°40'W and is approximately 130 km northwest of La Sarre, Quebec and 135 km NNE of Cochrane, Ontario, Figure 2. The area is accessible all year by fixed-wing aircraft. Access in 1983 will be via a winter road from La Sarre to the mine site passing across the Detour-Lower Detour claims. The all-weather road from Cochrane to the mine is schedule for completion by September 1983.

Property Status:

Equity: Westmin Resources Limited 100%

Location: Lower Detour Lake Area (M.2603), Hopper Lake Area (M.2601), Sunday Lake Area (M.3003)
Porcupine Mining District, Ontario
Lat. 49°54'N
Long.79°31'W
N.T.S. 32-E-13 (Hopper and Lower Detour Lake)
32-L-4 (Sunday Lake)

Property: 492 mining claims in 4 groups.

NASH CREEK CLAIM GROUP (93 claims)

Claims		Due Date
P.553623-553662	(40)	Jan. 4, 1983
P.553693-553731	(39)	Jan. 4, 1983
P.575669-575671	(3)	July 21, 1983
P.577781-577791	(11)	July 10, 1983

TIE-ON CLAIM GROUP (9 claims)

P.568937-568945	(9)	June 3, 1983

SUNDAY LAKE CLAIM GROUP (78 claims)

P.549852-549891	(40)	Jan. 4, 1984
P.553663-553670	(8)	Jan. 4, 1984
P.553740-553759	(20)	Jan. 4, 1984
P.576730-576735	(6)	Dec. 30, 1983
P.609948-609951	(4)	Mar. 10, 1984

DETOUR LAKE CLAIM GROUP - LOWER DETOUR (312 claims)

P.549918-549931	(14)	Jan. 4, 1983
P.553303-553483	(181)	Jan. 4, 1983
P.553503-553562	(60)	Jan. 4, 1983
P.553563-553574	(12)	Jan. 8, 1983
P.577751-577774	(24)	July 10, 1983
P.577792-577810	(19)	July 10, 1983
P.575672-575673	(2)	Oct. 10, 1983

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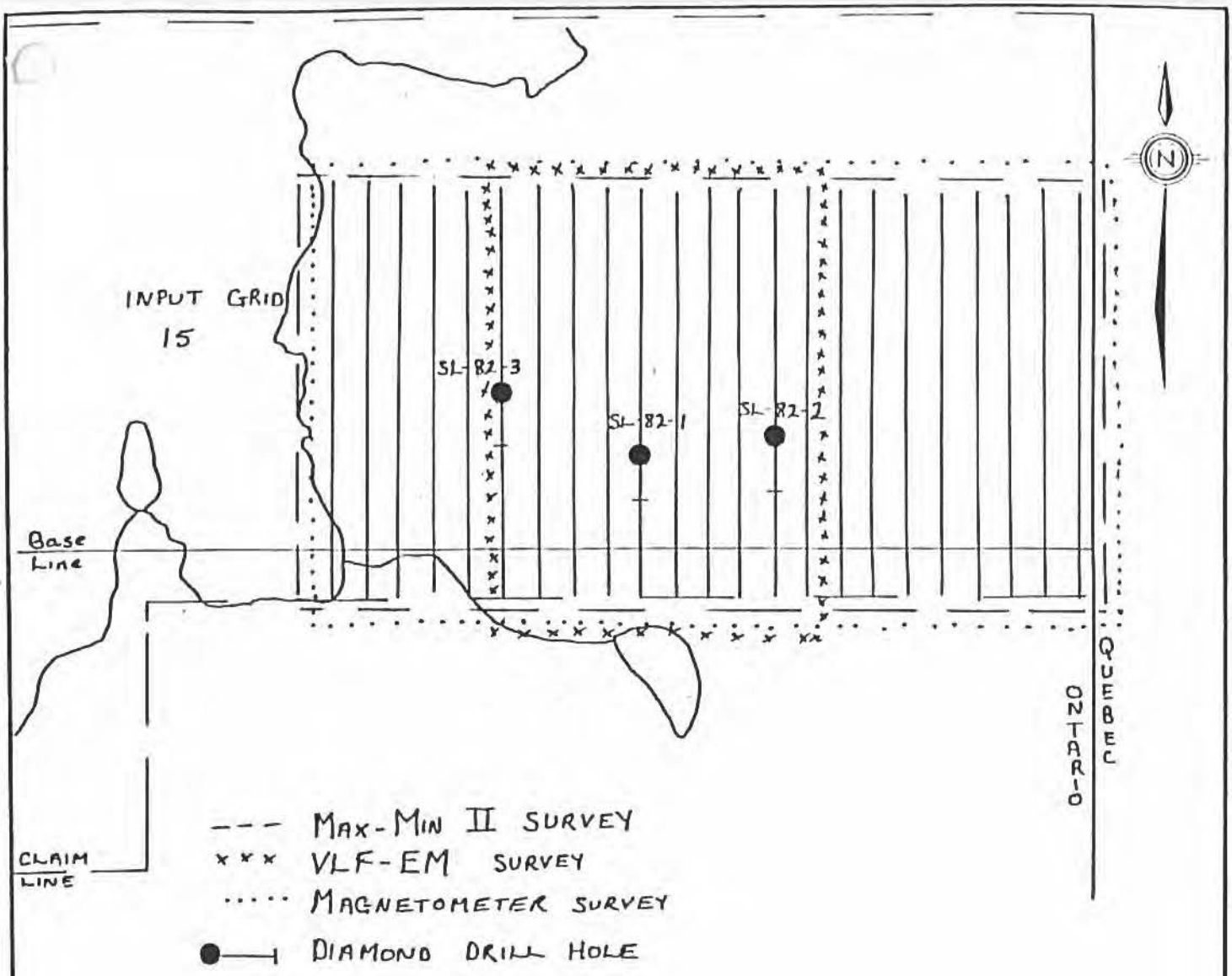
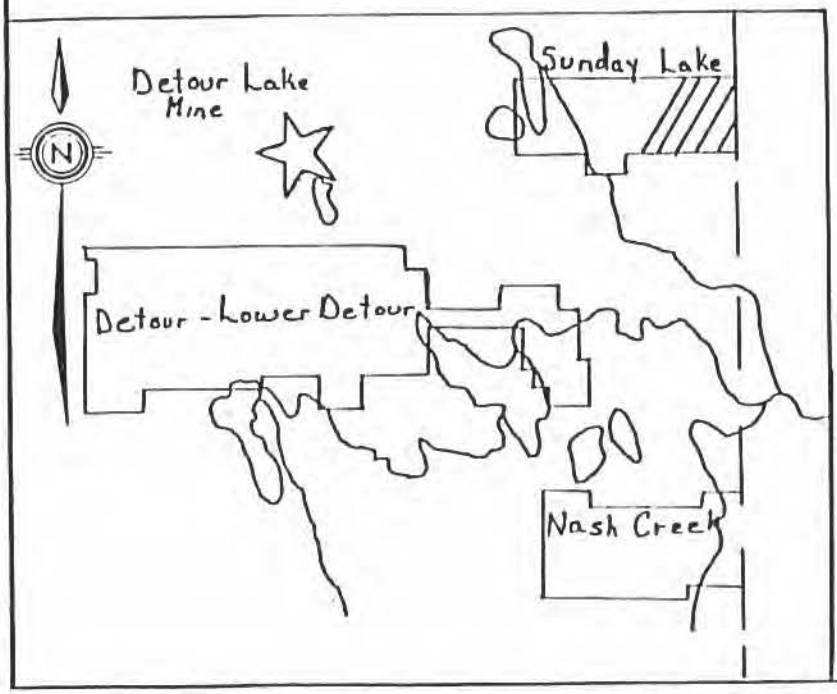
Assessment file: 63.4153

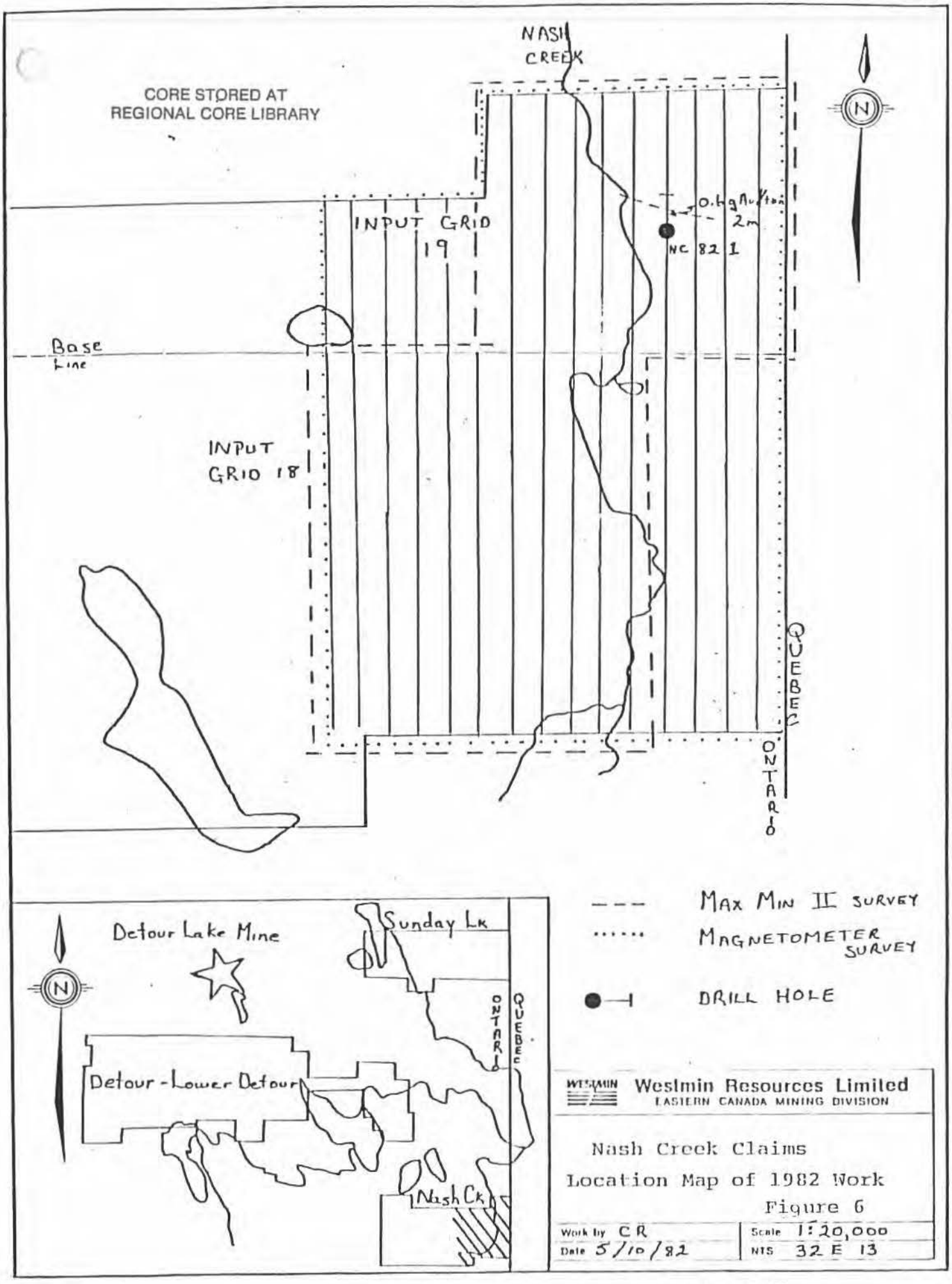




WESTMIN **Westmin Resources Limited**
EASTERN CANADA MINING DIVISION

Sunday Lake Claims
Location Map of 1982 Work
Figure 5

Work by C R	Scale 1:20,000
Date 5/10/82	NTS 32 L/4



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EASTERN CANADA MINING DIVISION

Nash Creek Claims
Location Map of 1982 Work
Figure 6

Work by CR	Scale 1:20,000
Date 5/10/82	NTS 32 E 13

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Introduction:

The Detour gold project was initiated in late 1979 in order to search for a Detour Lake type gold deposit (McMillan and Rockingham, 1979). The ground acquired was projected to be a stratigraphically equivalent horizon to the Detour Lake deposit. To test this hypothesis an airborne magnetic and electromagnetic survey (Questor, 1980) was carried out along with geological field mapping (Rockingham, 1980) and till sampling-bedrock chip sampling (Rockingham, 1981). This report presents the results of geophysical surveys and diamond drilling of specific conductors during 1982. The follow-up till sampling of anomalous values from the 1981 work is also reported (Nutter, 1982) in a companion report.

Table 2 Diamond Drill Statistic Sheet 1982, Detour Gold Project

Contractor: Bradley Bros., Noranda

Hole No.	Location	Azimuth Dip	Meterage O.B.	Drilling	Cost of * Consumables	Total	Cost/ Metre	Accumulated Cost	Date Start	Finish	Comments
NASH CREEK											
NC-82-1	4+80E 4+70N	0° -45°	46.7	137.5m	$3,636.30	$19,126.30	$139.10	$19,064.30	Feb. 4	Feb. 9	No change for water line (<300m)
DETOUR											
D-82-1	9+00E 2+75N	0° -50°	43.3	172.5m	$3,980.40	$23,052.40	$133.63	$42,116.70	Feb.11	Feb.17	"
D-82-2	14+00E 21+25N	0° -50°	39.5	135.95m	$2,591.40	$17,841.40	$131.23	$59,958.10	Feb.18	Feb.21	"
D-82-3	28+00E 17+00N	0° -50°	42	158.5m	$3,242.60	$20,756.60	$130.96	$80,714.70	Feb.22	Feb.26	"
D-82-4	28+00E 19+75N	0° -50°	62.2	188.7m	$2,536.80	$24,498.80	$129.83	$105,213.50	Feb.27	Mar. 3	"
D-82-5	46+00E 5+00S	0° -48°	35.0	157.3m	$3,326.60	$20,728.60	$131.77	$125,942.10	Mar. 4	Mar. 8	"
D-82-6	52+00E 4+75S	0° -45°	30.1	151.2m	$2,899.00	$19,737.10	$130.53	$145,679.20	Mar. 8	Mar.11	500 m water line
D-82-7	65+00E 1+37S	0° -50°	4.9	154.2m	$ 929.20	$20,868.86	$135.33	$166,548.06	Mar.13	Mar.15	Water line hauled 1.5 km by timber jack
D-82-8	75+00E 16+00S	0° -45°	10.4	190.2m	$ 761.80	$22,017.36	$115.76	$188,565.42	Mar.15	Mar.19	750 m water line

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Table 2 (Cont'd.)

Hole No.	Location	Azimuth Dip	Meterage O.B.	Drilling	Cost of * Consumables	Total	Cost/ Metre	Accumulated Cost	Date Start	Finish	Comments
D-82-9	87+00E 27+75N	180° -45°	62.2	169.5m	$4,370.00	$24,066.00	$141.98	$212,631.42	Mar.20	Mar.25	No change for water line
SUNDAY LAKE											
SL-82-1	52+00E 2+60N	180° -55°	69.6	131.7m	$5,679.90	$22,838.63	$173.41	$235,470.05	Mar.16	Mar.20	700m water line Minor problems with freezing. Hole abandoned when rods stuck
SL-82-2	56+00E 3+85N	180° -55°	68.6	156.7m	$5,448.20	$29,788.42	$190.09	$265,258.47	Mar.21	Mar.30	1100m water line Major problems with freezing.
SL-82-3	48+00E 4+35N	180° -55°	51.8	166.7m	$4,555.00	$24,238.39	$145.40	$289,496.86	Mar.30	Apr. 2	450m water line No problems.
				2070.65	$43,957.20		$139.81				

*Note:

The major consumable item was casing that could not be recovered because of the sandy, bouldery overburden. This casing loss cost $21.23/m of drilling.

Table 3 Summary of Geology/Geophysics from Diamond Drilling

Hole	Target INPUT Conductor	Depth	Conductivity x thickness (from Max-Min)	Summary of Geology
NC-82-1	19	137.5m	≥ 3 mhos	Cherty-Sulfidic Dacite tuff between 2 basalt units 1m 0.01 oz Au/ton 1m 0.02 oz Au/ton
D-82-1	3	172.5m	≥ 21 mhos	Sulfide/Silicate Iron formation (po + py) with intermediate tuffs and mafic flows, bleached volcanic rock at bottom of hole 2.0m 0.02 oz/ton Au in sulfide/silic facies iron formation
D-82-2	4	136m	15 mhos	Pyrrhotite and chalcopyrite stringer in biotitic intermediate tuff and ma volcanic adjacent to ultramafic talc carbonate rock
D-82-3	5B	158.5m	> 30 mhos	Sulfidic (po + py) mafic tuff adjace to ultramafic talc carbonate rock
D-82-4	5A	188.7m	> 30 mhos	Graphite chert with 15% (py + po) adjacent to ultramafic talc carbonat rock
D-82-5	7	157.3m	≥ 7 mhos	Two conductors graphite and py, grap and pyrrhotite within garnetiferous and bleached mafic volcanic rock
D-82-6	7	151.2m	≥ 5 mhos	Graphite, graphite and pyrite, graph cherty tuff within garnetiferous maf volcanic and intermediate to mafic volcanics. 1.33m of 46.8 ppm Ag in graphite wit fine-grained pyrite minor quartz

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Hole	Target INPUT Conductor	Depth	Conductivity x thickness (from Max-Min)	Summary of Geology
D-82-7	8	154.2m	$\geq$ 20 mhos (probably 40 mhos)	Quartz and sulfidic mafic tuff (po + py) between mafic flows
D-82-8	9	190.2m	$\geq$ 8 mhos (probably 40 mhos)	Quartz veins adjacent to mafic tuff with po + py above altered mafic and intermediate tuff with 1-5% pyrite and pyrrhotite
D-82-9	10	169.5m	15 mhos	Graphitic metasediment between mafic volcanic flows
SL-82-1	15	131.7m	N.A.	Graphitic sections within felsic and intermediate lapilli tuff
SL-82-2	15	156.7m	15 mhos	Graphitic sections within felsic and intermediate lapilli tuff
SL-82-3	15	166.7m	N.A.	Graphitic sections within argillaceo greywacke

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Table 5

Summary of 1982

Detour Project Geophysical Surveys

Claim Block	Horizontal EM 150m. cable	Magnetometer	VLF-EM
Detour-Lower Detour	66.8 km	66.8 km	28 km
Sunday Lake	28.675	28.675	10
Nash Creek	23.225	31.75	-
	118.70 km	137.225 km	32.35 km

Locations plotted on Figures

4 Detour Lower Detour Lake

5 Sunday Lake

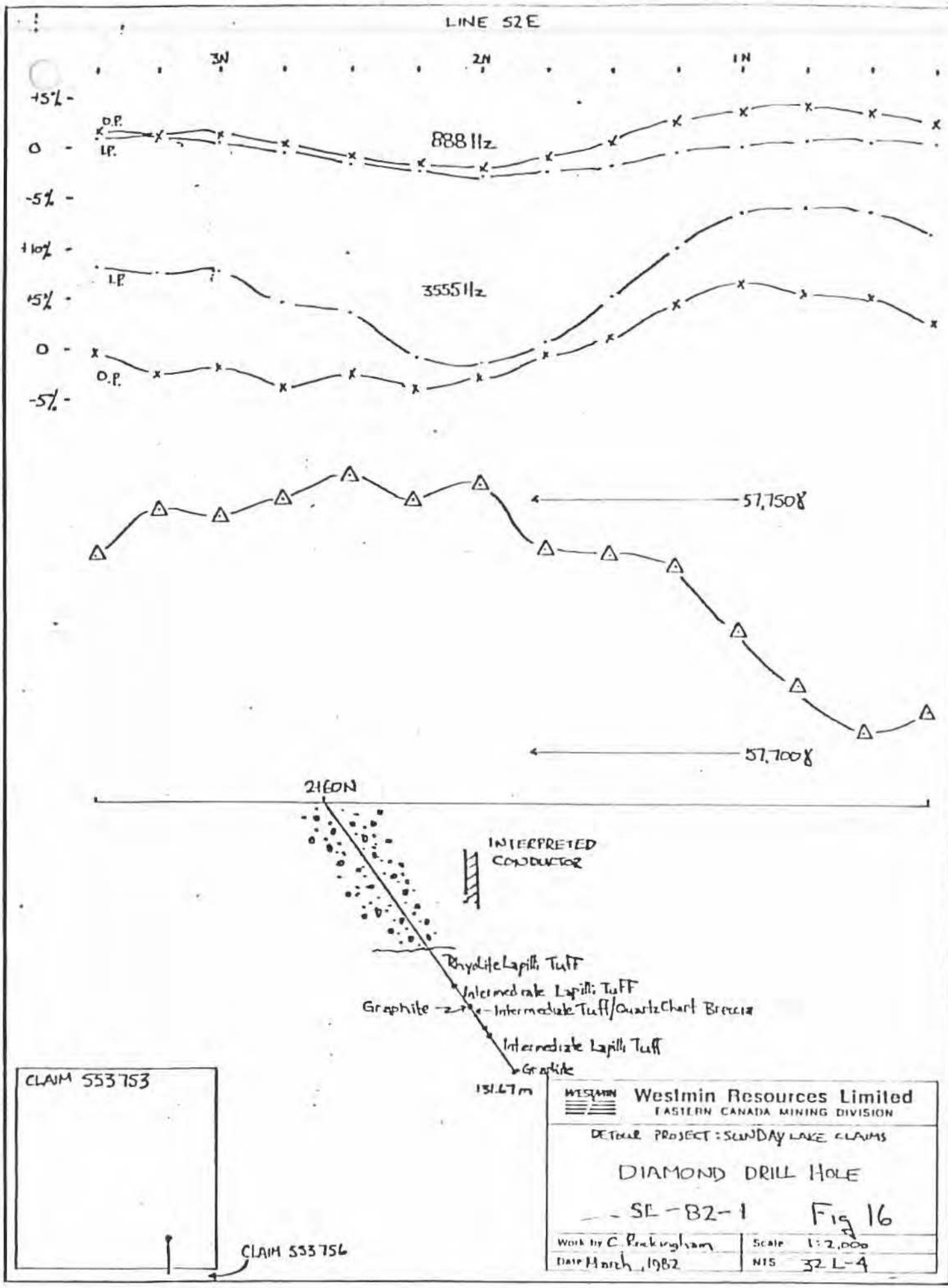
6 Nash Creek

Geophysics:

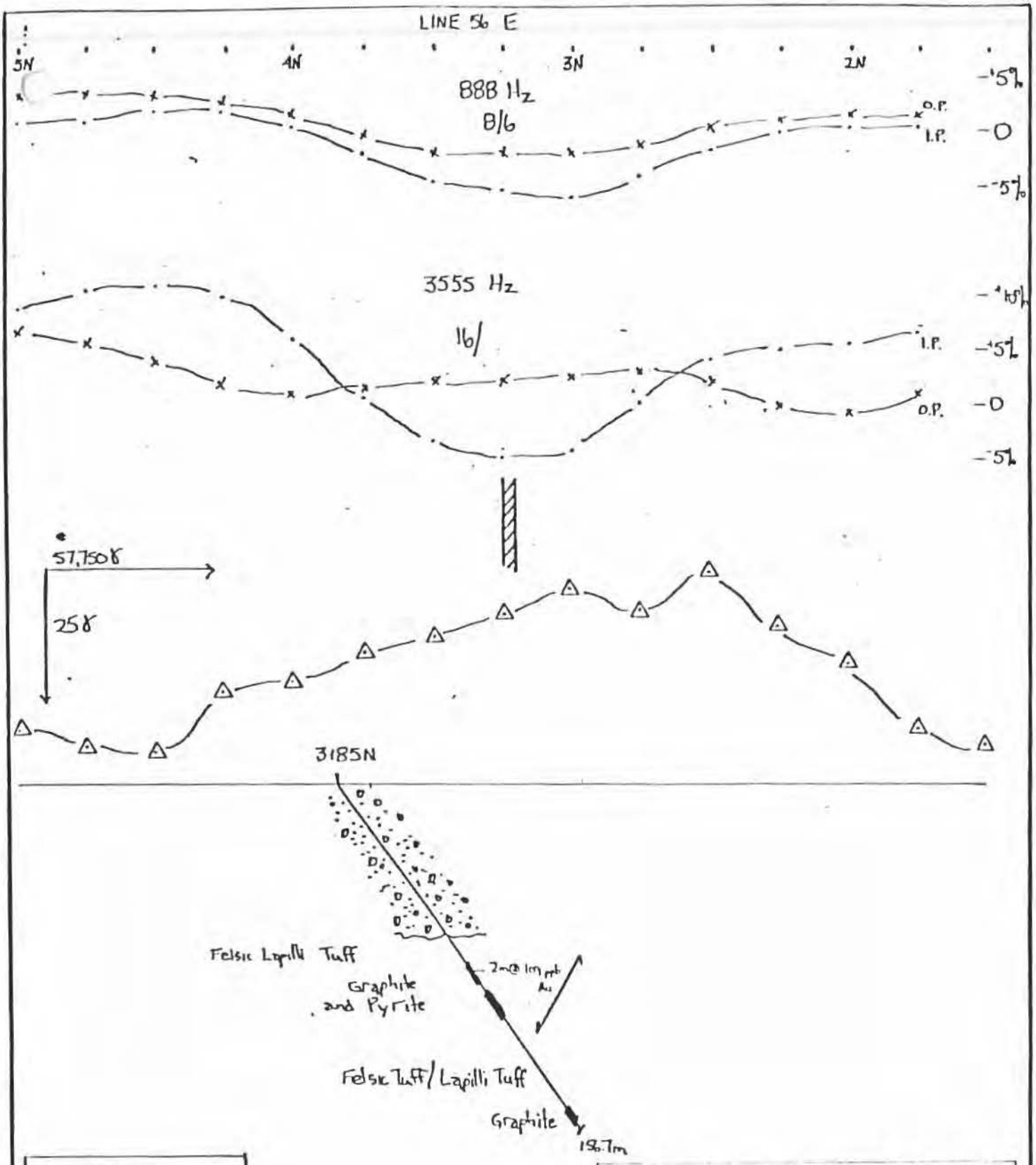
The 1982 work programme consisted of 118.7 km Max-Min II horizontal loop EM, 127.23 km of magnetometer surveys and 32.3 km of VLF-EM (Table 5). The required line-cutting was contracted to Ingamar Exploration of Connaught, Ontario, the Max-Min II was contracted to Phantom Exploration Services of Thunder Bay, Ontario and the magnetometer survey was carried out by R. Evoy of Westmin Resources utilizing the EDA PPM 300 and PPM 400 field unit and base station total field magnetometer. Reconnaissance VLF-EM was carried out by D. Healey of Westmin Resources utilizing the Geonics EM-16. The interpretation of the Max-Min data was provided by J. Betz of Toronto. The location of the survey areas are marked on Figures 4, 5, and 6, (fold out map at 1:20,000) and the interpretation of the Max-Min II data is summarized in Table 3. Plan maps of the 888 Hz Max-Min II surveys with the interpretation and the magnetometer survey are included in Appendices 2 and 3. The reconnaissance VLF-EM is also presented in Appendix 4 both in plan profile form and as Fraser filtered data.

Diamond Drilling:

The 1982 diamond drilling (Tables 3 and 4, cost summary and geology-geophysical summary; Figures 7-19, cross sections and geophysical profiles; Appendix 1, drill logs and assays) consisted of thirteen holes totalling 2070.65 m (6791.34 ft). Nine of the holes were drilled on the Detour-Lower Detour Lake claim block (1478.05 m) three on the Sunday Lake claims (455.1 m) and one on the Nash Creek claims (137.5 m).


LINE 52E
3N
2N
1N
+15%
0
-5%
+10%
+5%
0
-5%
O.P.
I.P.
888 Hz
I.P.
3555 Hz
O.P.
57,750 N
57,700 N
21 EON
INTERPRETED CONDUCTOR
Rhyolite Lapilli Tuff
Intermediate Lapilli Tuff
Graphite
Intermediate Tuff/Quartz Chert Breccia
Intermediate Lapilli Tuff
Graphite
131.47m
CLAIM 553753
CLAIM 553756
Westmin Resources Limited
EASTERN CANADA MINING DIVISION
DETAIL PROJECT: SUNDAY LAKE CLAIMS
DIAMOND DRILL HOLE
SL-82-1
Fig 16
Work by C. Rockingham
Scale 1:2,000
Date March, 1982
NTS 32 L-4

T.2331



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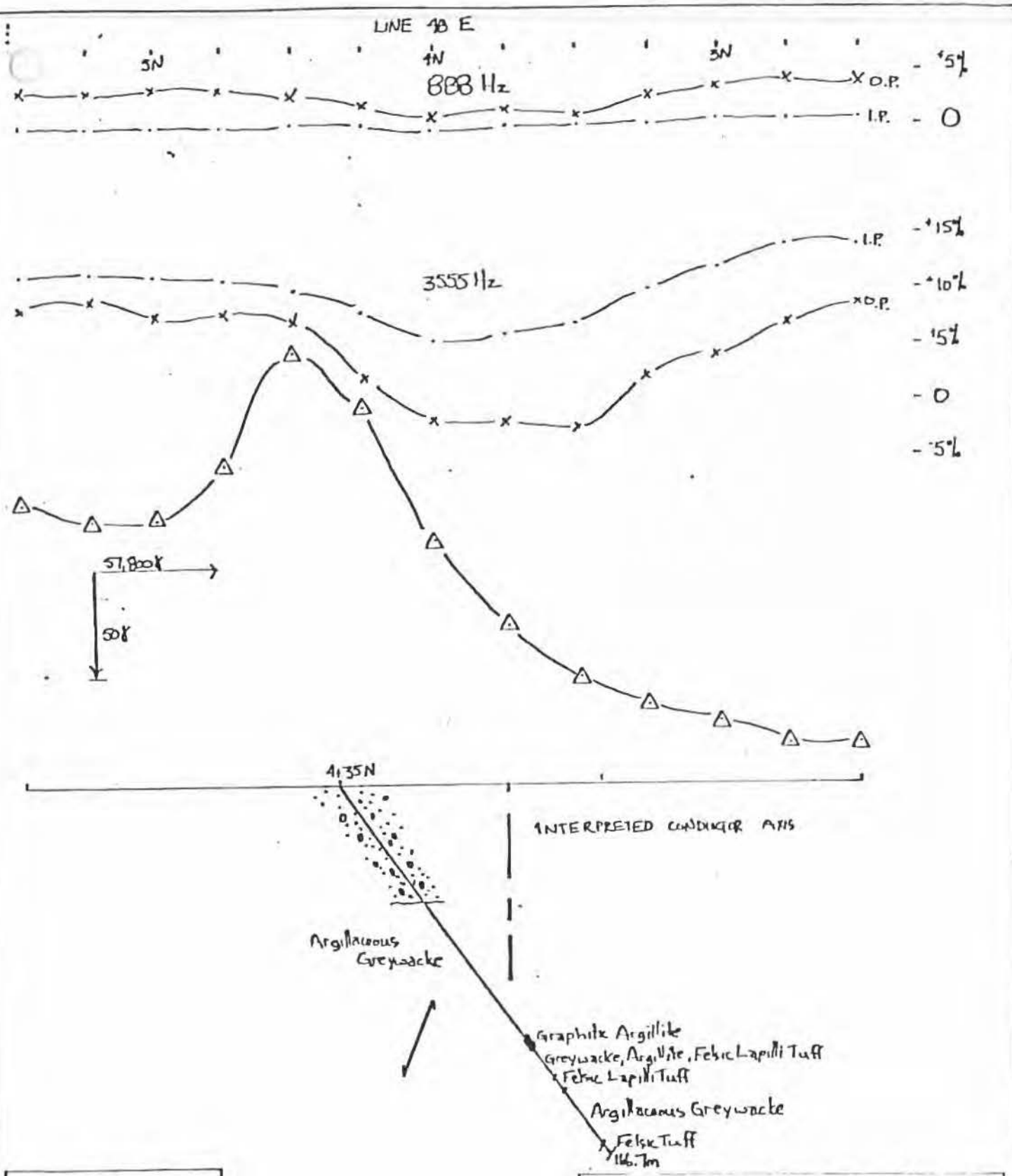
DETOUR PROJECT: SUNDAY LAKE CLAIMS

DIAMOND DRILL HOLE

SL-82-2 Fig 17

Work by C. Pockingham	Scale 1:2,000
Date March, 1982	NTS 32L-4


LINE 4B E
5N
4N
3N
888 Hz
O.P.
I.P.
- 5%
- 0
3555 Hz
I.P.
O.P.
+15%
+10%
15%
- 0
- 5%
57,800 X
50 X
4+35N
INTERPRETED CONDUCTOR AXIS
Argillaceous Greywacke
Graphitic Argillite
Greywacke, Argillite, Felsic Lapilli Tuff
Felsic Lapilli Tuff
Argillaceous Greywacke
Felsic Tuff
166.7m
CLAM 553751
Westmin Resources Limited
EASTERN CANADA MINING DIVISION
DETAIL PROJECT : SUNDAY LAKE CLAIMS
DIAMOND DRILL HOLE
SL-82-3
Fig 18
Work by C. Rockingham
Scale 1 : 2,000
Date April, 1982
NTS 32L-4

DIAMOND DRILL RECORD

NAME OF PROPERTY: SUNDAY LAKE (Detour Project)
HOLE NO.: SL-82-1   LENGTH: 131.67m (432 ft)
LOCATION: Line 52E   2 + 60N
LATITUDE: 50°00'10"
79°32'30"   AZIMUTH: 180°   DIP: -55°
STARTED: March 16/82   FINISHED: March 20/82

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-55	180			
432	NA				

HOLE NO. SL-82-1   SHEET NO. 1 of 3
REMARKS: Hole abandoned when rods broke and could not be retrieved
LOGGED BY: C. Rockingham

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	TOTAL	%	%	Ag OZ/TON	Au OZ/TON	
0	69.6	OVERBURDEN										
69.50	70.55	INTERMEDIATE LAPILLI TUFF - light grey to blue grey fragments up to 2 cm thick - long axis of fragments 50° to core axis - 90-90% of the rock consists of fragments with only 5-10% matrix - clasts are very fine grained and siliceous composed almost entirely of sugary quartz - matrix is dark green to black fine grained chlorite with dissiminated find grained pyrite - minor pyrite as layers 3-4mm thick - minor calcite in matrix	6723		69.50	70.55				0.1	7	
70.55	87.90	RHYOLITE LAPILLI TUFF - foliation and banding (60-65° to core axis) well developed and defined by long axis of framents. - layers and fragments of creamy white highly siliceous aphanitic rock alternating with pale green extremely fine grained matrix that is also highly siliceous - trace disseminated pyrite and a fine grained metallic black non-magnetic mineral with no magnetic susceptibility - pale green colour in matrix is assumed to be a result of minor chlorite content - 1mm lense of Po(+CPy) at 74.95 - fragments may be up to 8cm thick although the distriction between fragments and matrix is often difficult										
87.90	92.80	INTERMEDIATE TUFF - grey blue siliceous fine grained rock - well developed foliation 50° to core axis - sericite and chlorite on foliation planes - disseminated find grained pyrite on foliation plane										

DIAMOND DRILL RECORD

NAME OF PROPERTY [illegible]

HOLE NO. SL-82-1 SHEET NO. 2 of 3

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS Ag %	ASSAYS Au %	ASSAYS Ag oz/ton	ASSAYS Au oz/ton
87.90 (cont)	92.80	- occasional well defined fragments (up to 5cm thick) that are more siliceous than the host rock - 5mm pyrrhotite lenses @ 88.85, 90.42									
92.80	95.45	RHYOLITE LAPILLI TUFF - creamy white to pale green - same unit as 70.55 - 87.90									
95.45	97.83	INTERMEDIATE TUFF - same as 87.90 - 92.80									
97.83	98.00	GRAPHITE, PYRITE, PYRRHOTITE - laminations of graphite and quartz 60° to core axis interbedded with fine to medium grained pyrite and pyhotite	6724 6725		97.83 98.75	98.75 99.50				0.1 ND	14 ND
98.00	102.90	INTERMEDIATE TUFF/QUARTZ CHERT BRECCIA - intermediate tuff - fine grained grey blue with well developed foliation 60° to core axis - quartz breccia is not typical quartz vein but contains distinct fragments of white to grey quartz often associated with 1-2% pyrite and pyrrhotite and a calcite cement, some chlorite with quartz - chert fragments are blue black and are also brecciated as they are cut long thin veinlets of white quartz - within this unit there are five distinct breccia zones all ~ 50cm thick - graphite, pyrite pyrrhotite zone 102.1 - 102.3	6726 6727 6728 6729		99.50 100.50 101.50 102.30	100.50 101.50 102.30 103.10				0.1 ND ND ND	ND 14 14 14.
102.90	106.65	INTERMEDIATE TUFF - laminated 50° to core axis - pale grey blue or grey black - very fine grained and siliceous - similar to the intermediate tuffs from 95.45 - 97.83 and 87.90 - 92.80 except that this unit has no fragments and has better development of bedding or foliation - disseminated pyrite throughout -1% - rusty orange dolomitic carbonate in irregular patches @ 106.3 - 106.5; this occurs near the gradational contact with the lower unit - slightly graphitic @ 106.0 - 106.06	6730		105.94	106.94				ND	21

DIAMOND DRILL RECORD

NAME OF PROPERTY [illegible]

HOLE NO. SL-82-1 SHEET NO. 3 of 3

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPH IDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS Ag %	ASSAYS Au %	ASSAYS Ag [illegible]	ASSAYS Au [illegible]
106.65	112.52	INTERMEDIATE LAPILLI TUFF - similar to that from 69.5 - 70.55 - light grey to blue grey fragments up to 3cm thick - fragments long axis 60°-70° to core axis - clasts are irregular in shape and have fiamme (?) flame like ends - fragment composition is felsic - fragments 80-90% of the rock - matrix is dark blue-black and chloritic with disseminated pyrite and occasional bands of pyrite up to 1cm thick - slightly graphitic @ 108.75 3 cm @ 112.37	6731		111.52	112.52				ND	14
112.52	113.30	INTERMEDIATE FLOW - pale green, massive fine grained									
113.30	117.46	INTERMEDIATE LAPILLI TUFF - similar to that from 106.65 - 112.52 but with fewer fragments - graphitic at 116.53 graphite, pyrite, pyrrhotite from 116.89 - 117.46	6732 6733		113.60 116.46	114.80 117.46				ND 0.4	7 62
117.46	121.3	RHYOLITE LAPILLI TUFF - similar to rhyolite tuff from 70.55 - 87.90									
121.3	131.67	INTERMEDIATE LAPILLI TUFF - similar to that from 106.65 - 112.52 - graphite and pyrite from 130.70 - 131.25	6734		130.67	131.67				0.4	21
END OF	HOLE										

C. Rockingham

T.2331

DIAMOND DRILL RECORD

NAME OF PROPERTY: SUNDAY LAKE (Detour Project)
HOLE NO.: SL-02-2 LENGTH: 156.66m / 514ft
LOCATION: Line 56 + 00E 3 + 85N
LATITUDE: 50°00'20" 79°32"
ELEVATION: AZIMUTH: 180° DIP: -55°
STARTED: March 21/82 FINISHED: March 30/82

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-55°	180°			
514	-50°	N.A.			

HOLE NO. SL-02-2 SHEET NO. 1 of 2
REMARKS: INPUT 15

LOGGED BY: C. Rockingham

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAY %	ASSAY %	ASSAY Au oz/TON	ASSAY Au oz/TON (check)
0	68.64	OVERBURDEN - sand gravel boulders									
68.64	82.50	FELSIC LAPILLI TUFF - pale grey to white siliceous very find grained fragments up to 5 cm thick - fragments constitute 80-90% of the rock - matrix is dark blue-black fine grained chlorite and sericite - foliation defined by fragment-matrix contact is 50-60° to core axis - disseminated pyrite —1% occurs throughout this unit - 5% Py and Po as gragments from 72.25 - 72.70 - minor calcite and/or quartz veins	6743	5%	72.0	73.0	1.0				10
82.50	90.24	GRAPHITE - black, generally non-metallic lustre 5% pyrite occurring as fine grained beds that display soft sediment style folds - some of the pyrite is oxidized to limonite - numerous thin calcite beds and veinlets - bedding 60° to core axis - gradational contact with the lower thin felsic unit	6744		82.5	84.37	1.87				21
			6745		84.37	86.24					24
			6746		86.24	88.11					ND
			6747		88.11	90.24					25
90.24	95.84	FELSIC TUFF - Very similar to the felsic lapilli tuff from 68.64-82.50 but with ash size particles and thim layers of graphite and pyrite at 89.30 - 89.40, and 91.64 - 91.74									
95.84	107.58	GRAPHITIC METASEDIMENT - well defined bedding 60° to core axis - fine grained graphite with non metallic lustre - pyrite occurs as find grained beds and large framboids (up to 2cm) often associated with calcite	6748		95.84	97.84	2.0				14
			6749		97.84	99.84	2.0				55
			6750		99.84	101.84	2.0				28
			6751		101.84	103.84	2.0				41
			6752		103.84	105.84	2.0				109
			6753		105.84	107.58	1.74				42

LANDRIDGES – TORONTO – 366-1168

CORE STORED AT REGIONAL CORE LIBRARY

T 2331

CORE STORED AT REGIONAL CORE LIBRARY

DIAMOND DRILL RECORD

NAME OF PROPERTY SUNDAY LAKE (Detour Project)

HOLE NO. SL-82-2 SHEET NO. 2 of 2

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS Au %	ASSAYS %	ASSAYS oz/ton	ASSAYS oz/ton
95.84 (cont)	107.58	- calcite and quartz veins up to 4cm thick from 103.3 - 104.5 - Sharp contact with lower felsic unit									
107.58	150.40	FELSIC TUFF / LAPILLI TUFF - very similar to the units from 68.64 - 82.50 and 90.24 - 95.84 - foliation 60° to core axis - white massive extremely siliceous sections from 114.92 - 116.08 116.94 - 117.36 123.69 - 124.50 - massive sections have minor fracturing along which there is some pale blue grey chlorite-sericite that has gradational contacts with the rhyolite-disseminated Py <1%									
		136.55-138.40 massive rhyolite with disseminated pyrite <1%	6754		136.55	138.40	1.85				28
		quartz calcite veins and veins of a pale brown needle like mineral (possible tourmaline)	6755	2% Py	145.5	146.6	1.0				28
			6756		146.6	147.4	1.0				28
150.40	153.40	GRAPHITIC LAPILLI TUFF - slightly graphitic - fine grained pyrite 3-4% - calcite in matrix and veins - bedding 60°- 70° to core axis	6757		150.40	151.4					14
			6758		151.4	152.4					7
			6759		152.4	153.4					14.
153.40	156.71	FELSIC TUFF - same as 107.58 - 150.40 - massive white sections from 153.63 - 154.13									
END OF HOLE											

C. Rockingham

LANGRIDGES – TORONTO – 366-1188

FORM 2

1.2331

DIAMOND DRILL RECORD

NAME OF PROPERTY SUNDAY LAKE (Detour Project)
HOLE NO. SL-82-3 LENGTH 166.7m / 547 ft
LOCATION Line 48+00E 4+35N
LATITUDE 50°00'20" 79°32'30"
ELEVATION AZIMUTH 180° DIP -55°
STARTED March 30/82 FINISHED April 2/82

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
0	-55°	180°			
507	-53°	N.A			

HOLE NO. SL-82-3 SHEET NO. 1 of 3
REMARKS INPUT 15
LOGGED BY C. Rockingham

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	% SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS OZ/TON	ASSAYS OZ/TON	
0	51.83	OVERBURDEN - sand, gravel, and boulders										
51.83	115.00	AGRILLACEOUS GREYWACKE - light grey to green - grain size varies from medium to fine grained to aphanitic - moderate to well developed foliation/bedding 50° to 60° to core axis greywacke sections are typically 5-10cm thick (although section up to 30cm do occur) consisting of fine to medium grained minerals dominantly quartz and light brown to black mica, minor chlorite - calcite along fractures - numerous calcite or calcite and quartz veins usually -1cm thick argillite sections are typically less than 10cm thick and consist of aphanitic green material, usually with very thin wispy chloritic material in "veins" sub parallel to the core axis i.e. normal to bedding - quartz and calcite veins up to 5 cm thick are more common from 75-115m and occur on average every 3 m										
115.00	115.80	TUFFACIOUS ARGILLITE - fine grained siliceous felsic volcanic fragments up to 0.5cmx3cm in a fine grained grey black slightly graphitic argillite - minor pyrrhotite as layers 3-4mm thick	6760		115.00	115.80	.80				21	
115.80	117.07	ARGILLITE - light grey-black - very fine grained - thin bedded 45° to core axis - very slightly graphitic	6761		115.80	117.07	1.25				21	

DIAMOND DRILL RECORD

NAME OF PROPERTY: ---

HOLE NO. SL-82-3 SHEET NO. 2 of 3

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS Au oz/ton	ASSAYS Au ~~oz/ton~~	
117.07	118.13	GRAPHITE - graphite with calcite and 5% pyrite - well developed bedding 45° - 50° to core axis	6762		117.07	118.13	1.06				21	
118.13	119.33	GREYWACKE - pale green, medium grained - disseminated pyrite 2% - graphite and pyrite @ 118.35 - 118.45 119.18 - 119.20	6763		118.13	119.33	1.20				21	
118.22	117.3	FELSIC LAPILLI TUFF - pale green to beige very fine grained siliceous matrix - fragments 1-3 cm thick of beige-white, very fine grained siliceous rock - minor lenses and layers of pyrrhotite 1-2 mm thick										
127.4	129.82	GREYWACKE - pale green, medium to fine grained - bedding 6 0° to core axis - gradational contact with felsic lapilli tuff										
129.82	130.70	ARGILLITE - grey black - very fine grained - thin bedded with some soft sediment style folding - bedding 60°-70° to core axis - lower contact gradational over 20cm										
130.70	135.50	FELSIC LAPILLI TUFF - same as 119.33 - 127.4 - lower contact gradational over 30 cm										
135.50	159.21	ARGILLACEOUS GREYWACKE - same as 51.83 - 115.00										

LANGRIDGES – TORONTO – 366-1168

FORM 8

T.2331

DIAMOND DRILL RECORD

NAME OF PROPERTY SUNDAY LAKE (Detour Project)

HOLE NO. SL-82-3 SHEET NO. 3 of 3

FOOTAGE FROM	FOOTAGE TO	DESCRIPTION	SAMPLE NO.	SAMPLE % SULPHIDES	SAMPLE FOOTAGE FROM	SAMPLE FOOTAGE TO	SAMPLE FOOTAGE TOTAL	ASSAYS %	ASSAYS %	ASSAYS oz/ton	ASSAYS Au ppb	
159.21	166.77	FELSIC TUFF - pale green and brown layers alternating with beige white layers - very fine grained - lightly siliceous - well developed bedding 60° to core axis individual beds 1-2mm thick - pale green colour results from fine grained chlorite and pale brown from fine grained biotite - no sulfides noted - quartz and quartz calcite veins @ 160.7 - 160.9 162.9 - 163.13 163.2 - 163.45 165.4	6764		162.80	163.80	1.0				28	
END OF HOLE												

C. Rockingham

T.2331

References:

McMillan, R.H. and Rockingham, C.J., 1979; Detour Project - a proposal to acquire a land position in a near gold mining camp. Report for Western Mines Ltd.

Nutter, G.E., 1982; A report on 1982 overburden drilling, Detour gold project, Ontario (NTS 32E 13/L4). Report for Westmin Resources Ltd.

Questor, 1980; Airborne electromagnetic survey, Western Mines Ltd., Detour Lake area, Ontario. Project #22006.

Rockingham, C.J., 1980; A report on the Detour gold project, northeastern Ontario. Report for Western Mines Ltd.

Rockingham, C.J., 1981; A report on 1981 work Detour gold project, Ontario (NTS 32E 13/L4). Report for Westmin Resources Ltd.

Appendix 1

Diamond Drill Logs and
Assays

T.2331

Appendix 5

Repeatability of Magnetic Data (by R. Evoy)

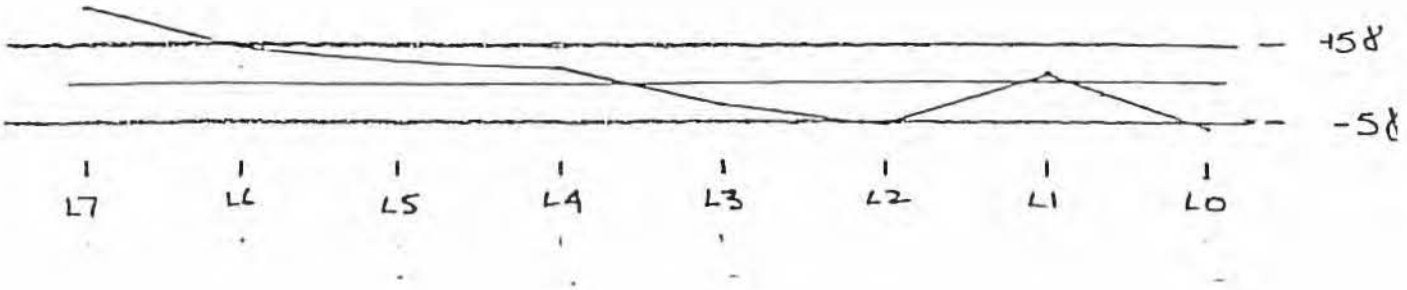
The repeatability of magnetic data serves as measure of the confidence one can have in the data, and also as the lower limit of anomaly detection. The following tables and figures are intended to give a graphic display of this repeatability. The three different days and different grids were selected arbitrarily from the areas surveyed after our magnetometer was returned to us by EDA in late February.

On the graphs, the area lying between the two red lines is what both Jack Betz and Ian Park have suggested as a practical definition of "repeatable" for our purposes. The reason for increasing the acceptable spectrum to $\pm$ 5 gammas from the fractional variations claimed possible by the manufacturer is that it is felt to be the realistic limit of the operator as opposed to the limit of the instrument. To improve on this you would need not only to position the magnetometers sensor pole in the same location, but also carry along a level to insure that the pole is at the same angle, the sensor is the same elevation above the ground, etc.

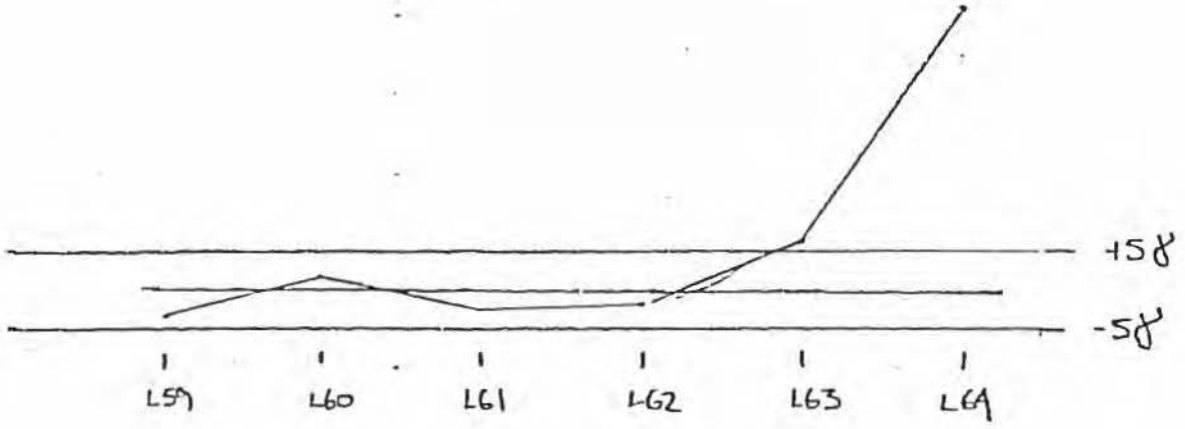
On Tables 1, 2 and 3 Δ R represents the earlier of the two readings minus the latter. This is intended to show whether or not variation is a consistent increase (and/or decrease) during the course of the day.

In Table 2, the variation between readings on Line 64 is 36.3 gammas. Erroneous values such as this are unexplained at present. Although it may represent a software error in the field instrument, it is more probable that it is an operational error. The data has been tested both with this reading included, and with it removed. In Tables 2 and 4 averages and standard variations contained within parenthesis represent values with this reading included.

MARCH 6 : LAC MASSICOTTE
MAG # 022



FEBRUARY 25, SUNDAY LAKE
MAG # 022



MARCH 3, LAC COMBAL UZIER
MAG # 022

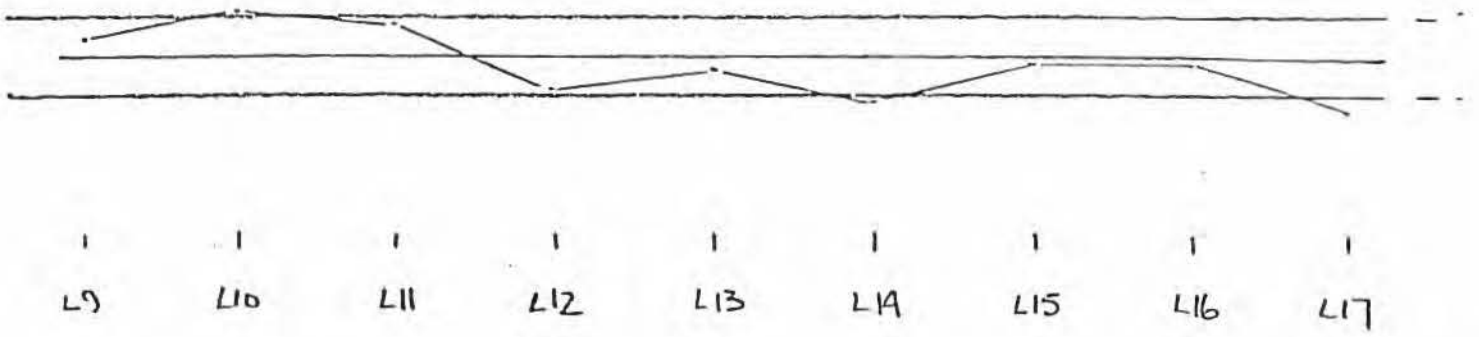


Table 1

March 6, Lac Massicotte

Line	Station	R1	R2	ΔR
0	0+00	757.9	764.0	-6.1
1W	↓	757.3	756.3	1.0
2W		769.5	776.2	-5.7
3W		764.0	766.8	-2.8
4W		813.1	811.1	2.0
5W		788.4	785.6	2.8
6W		783.7	779.1	4.6
7W		858.8	846.9	9.9

Table 2

February 25, Sunday Lake

Line	Station	R1	R2	R3	ΔR
59E	0+00	680.7	684.3		-3.6
60E	↓	699.4	700.8	699.2	1.6
61E		694.8	696.4	696.8	-2.4
62E		694.8	694.9	696.7	-1.9
63E		691.4	688.9	694.7	5.8
64E		748.7	702.4		36.3

Table 3

March 3, Lac Combaluzier

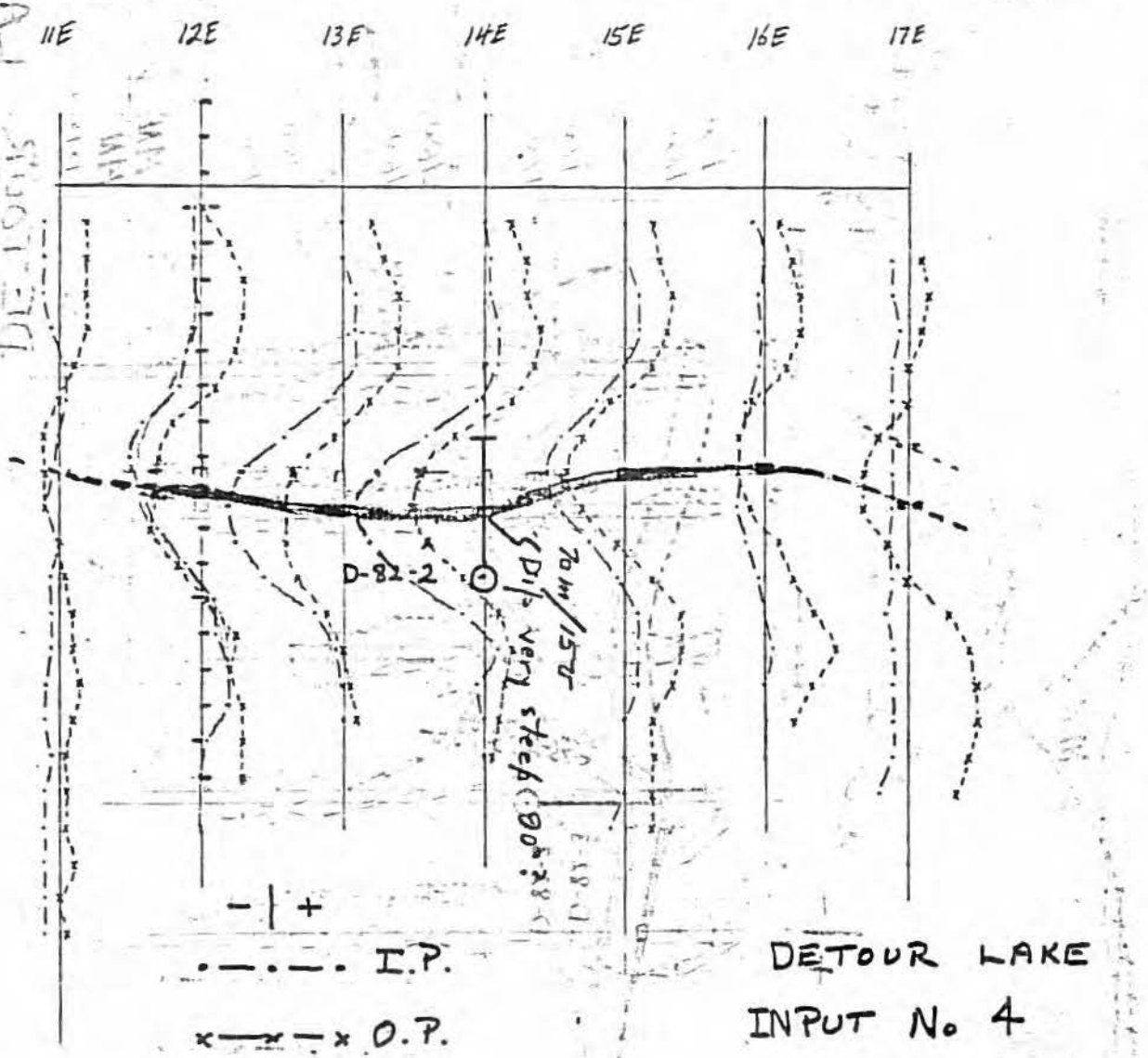
Line	Station	R1	R2	R
17	0+00	939.9	947.0	-7.1
16		864.9	866.1	-1.2
15		886.9	887.9	-1.0
14		901.6	907.6	-6.0
13		833.8	855.2	-1.4
12		836.9	841.3	-4.4
11		830.1	826.1	4.0
10		791.3	785.9	5.4
9	↓	811.8	809.7	2.1

Table 4

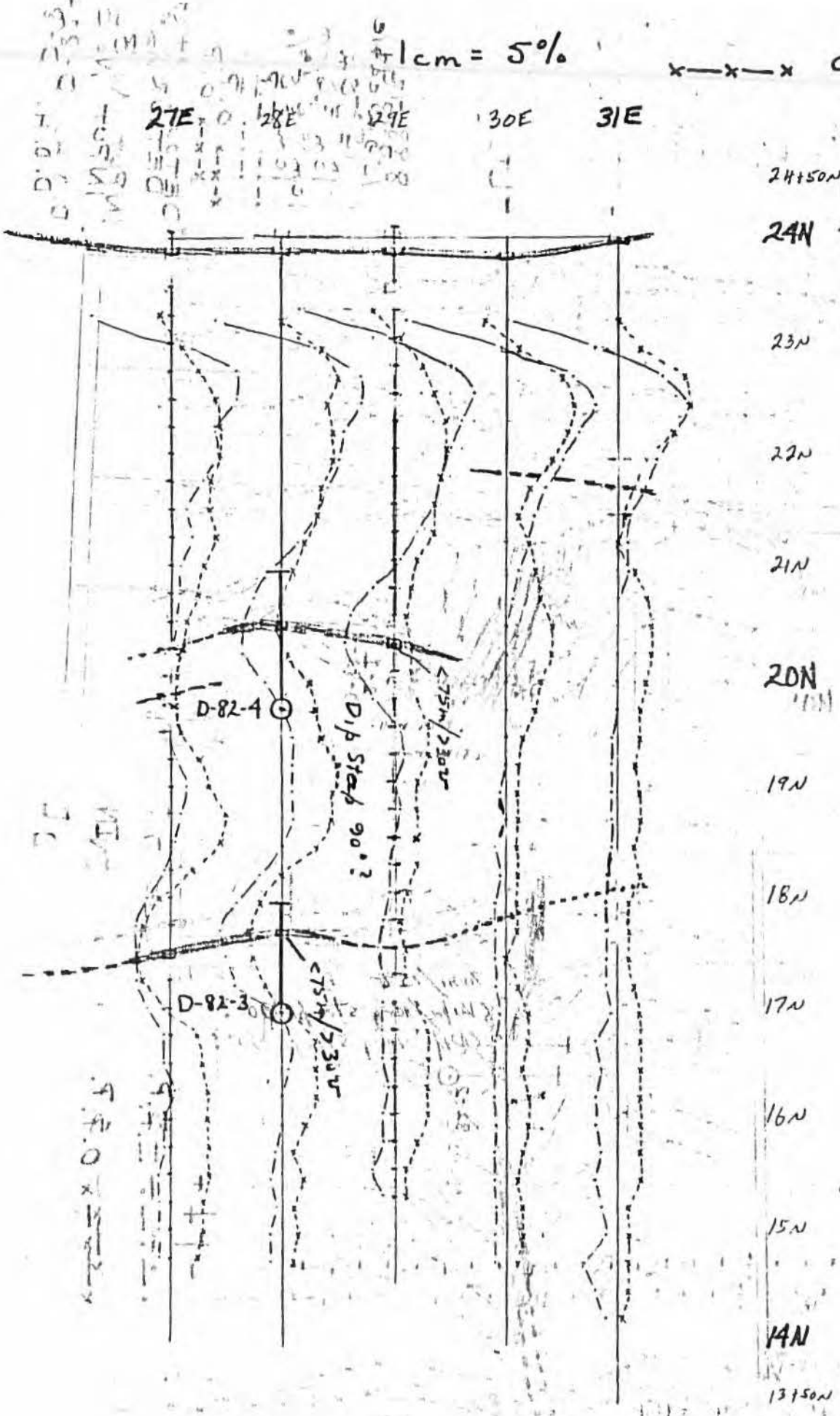
Grid	Average Variation	Standard Deviation
Lac Massicotte	4.36	2.996
Sunday Lake	3.06 (8.60)	1.945 (15.020)
Lac Combaluzier	3.6	2.002
Combined Grids	3.67 (5.52)	2.350 (7.329)

DETOUR LAKE
888 hz

1 cm = 50 m
1 cm = 5% 150 m cable



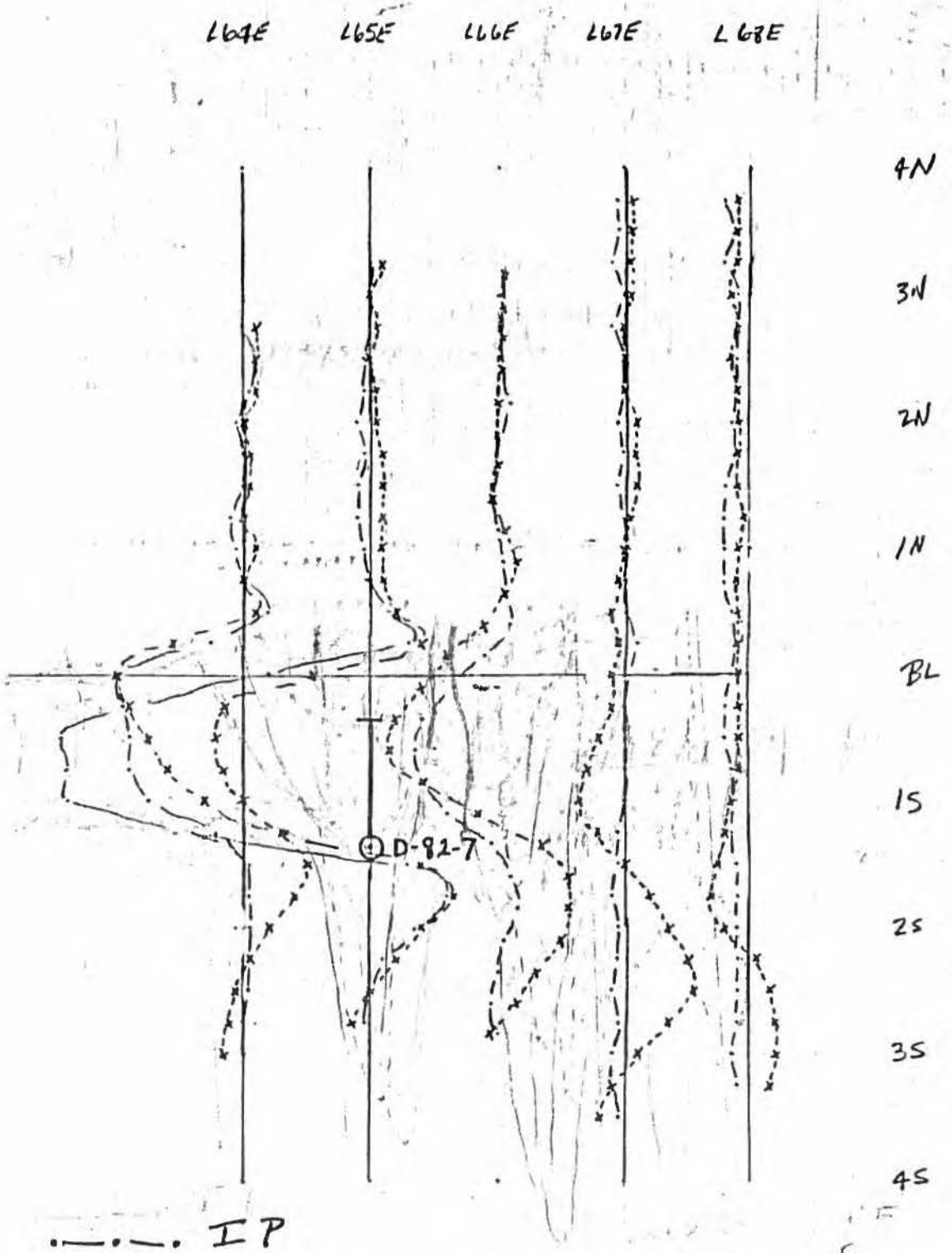
DETOUR LAKE
INPUT No 4
D.D.H D-82-2



DETOUR LAKE
INPUT No. 5 A + B
DDH D-82-3
D-82-4

888 Hz 150m cable

1cm = 50m 1cm = 5%



.—.—. IP

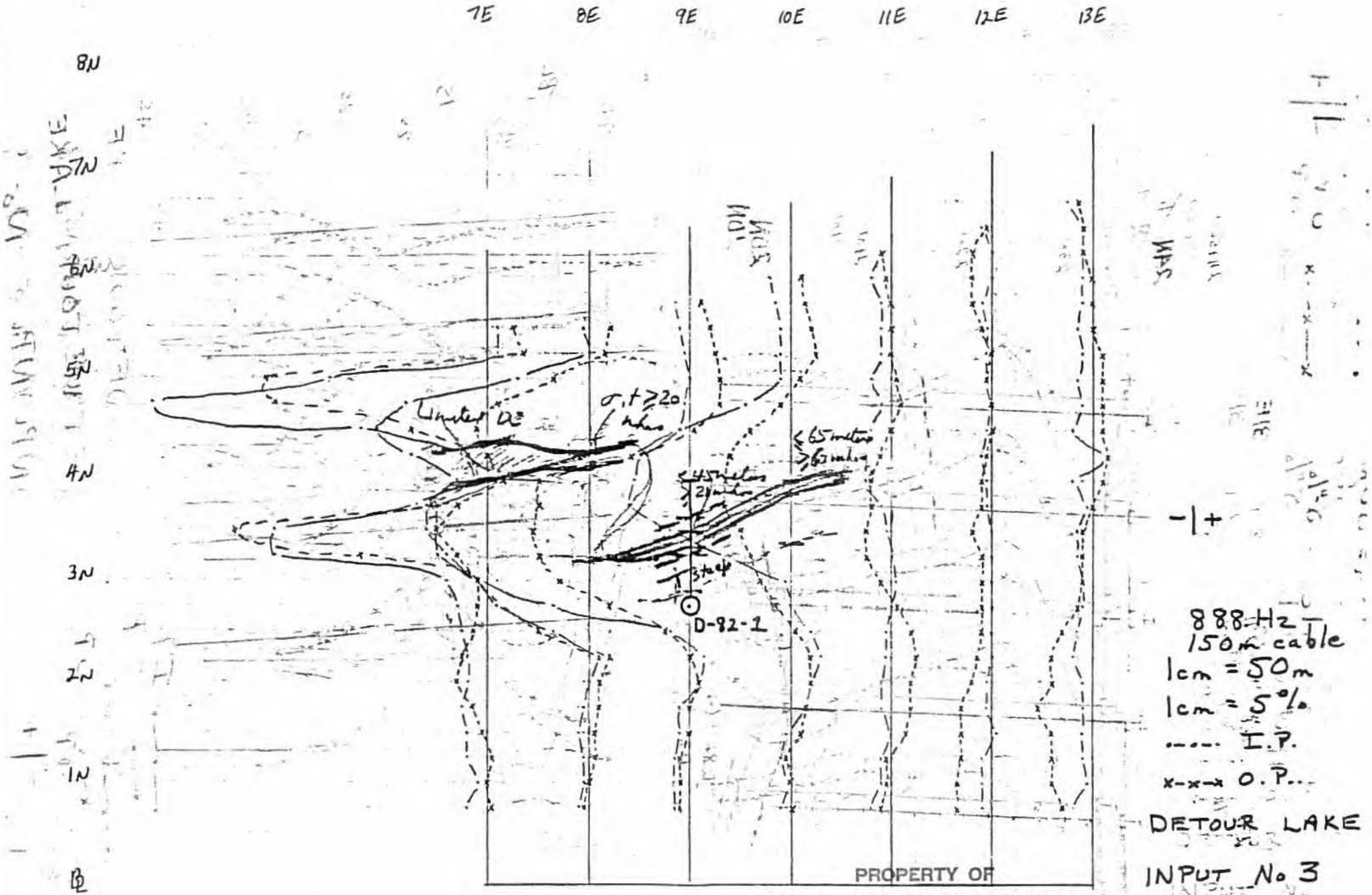
x—x—x OP

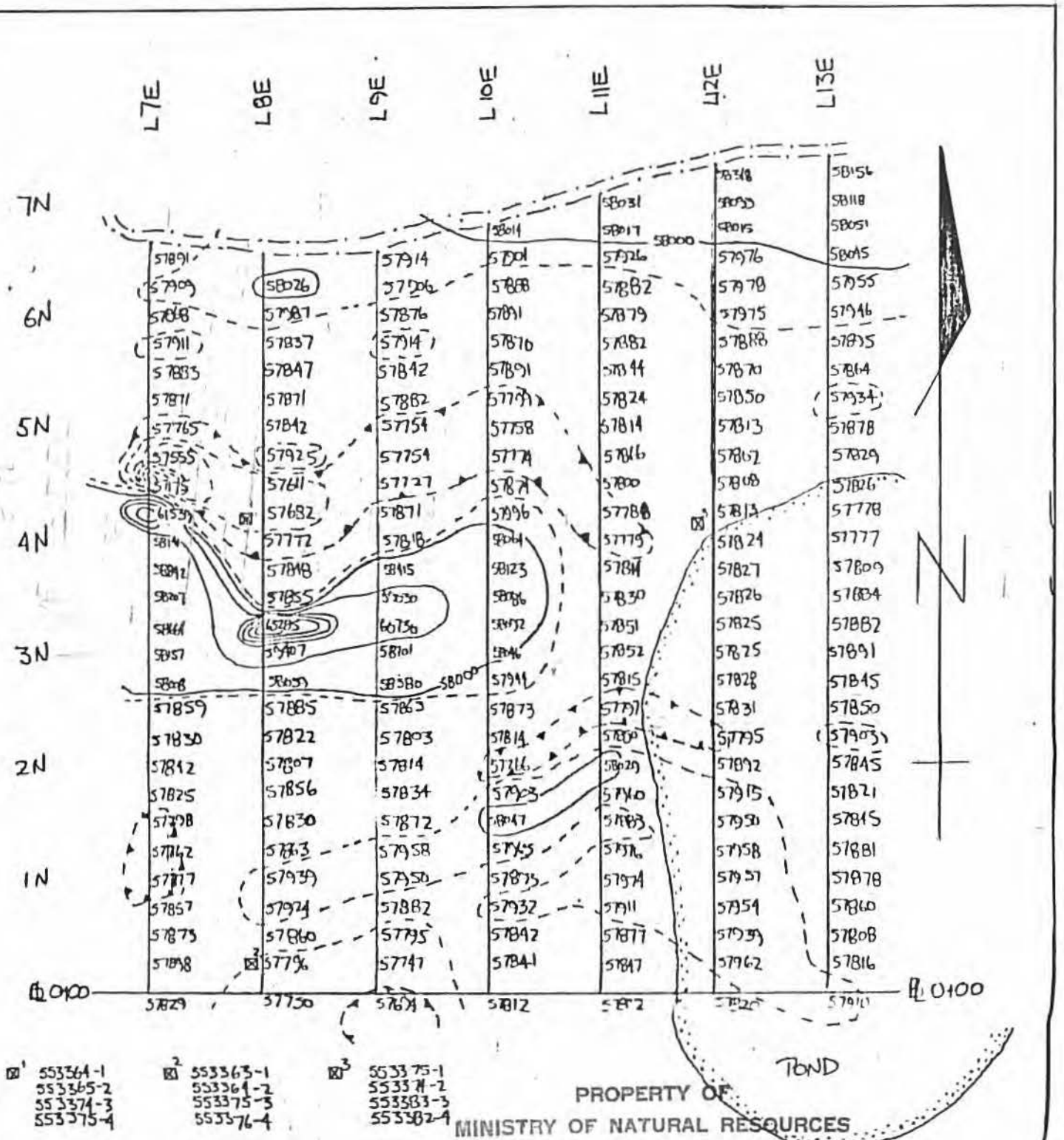
−|+

DETOUR LAKE

INPUT No 8

DDH D-82-7





⊠1 553364-1, 553365-2, 553374-3, 553375-4

⊠2 553363-1, 553364-2, 553375-3, 553376-4

⊠3 553375-1, 553374-2, 553383-3, 553382-4

WESTMIN RESOURCES LIMITED

DETOUR PROJECT 63.4153

PROTON PRECESSION MAGNETOMETER SURVEY

INPUT 3

Survey by : R.Eudy	Instrument EDA PPM-300
Drawn by : R.Eudy	
Date : February 5, 1982	Tuning Field

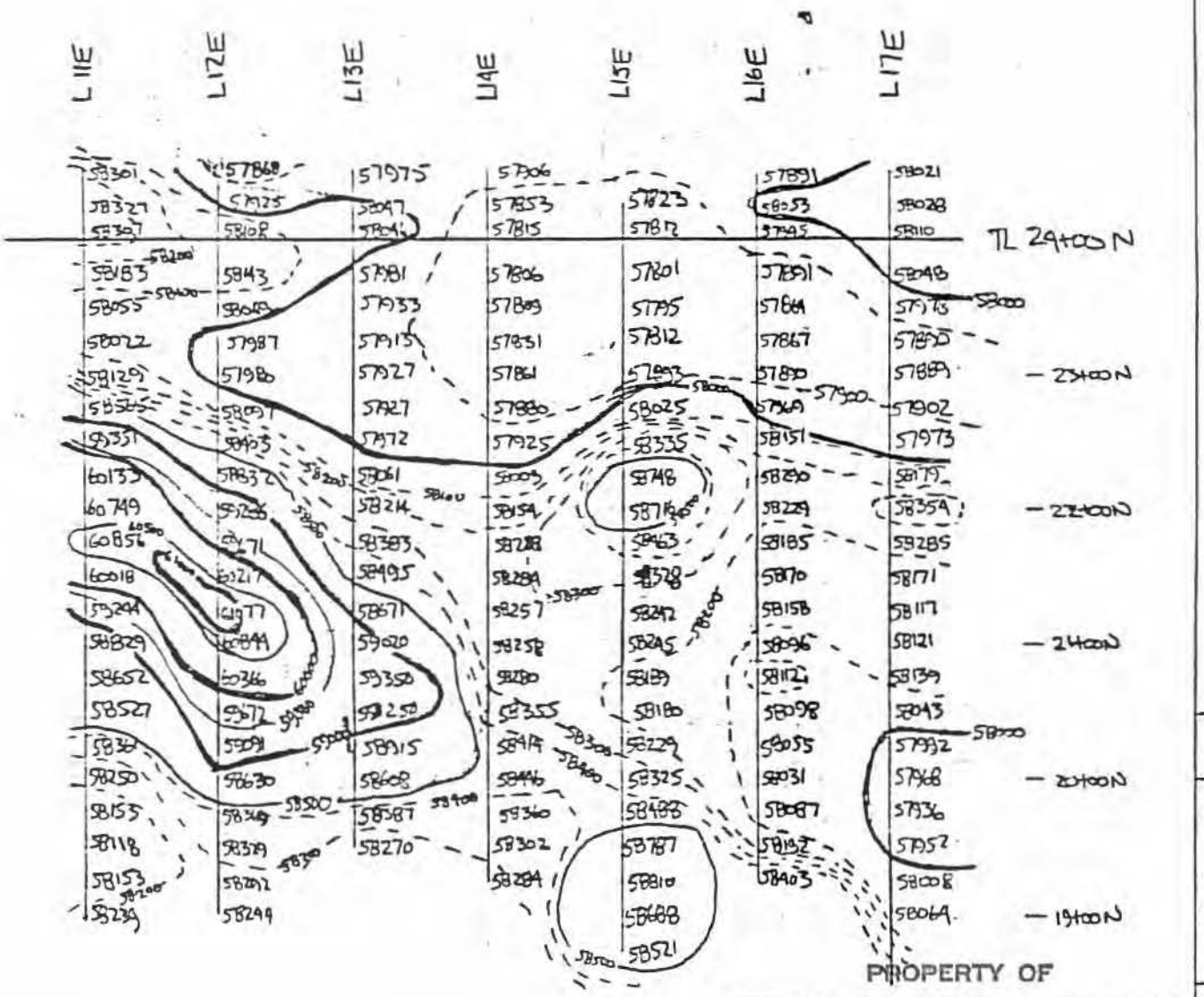
57893 / 57889 Grid Line with Station Readings

Drill Road

Lake shore

Claim Post

T.2331



LEGEND

57848
57878 Grid line with station readings, corrected by EDA PPM-400
57850

Tuning Field (Base Station) = 58000 γ

Magnetic Contour

1000 γ interval Contours

500 γ interval Contours

100 γ interval Contours

50 0 50 100
(metres)

63.4153

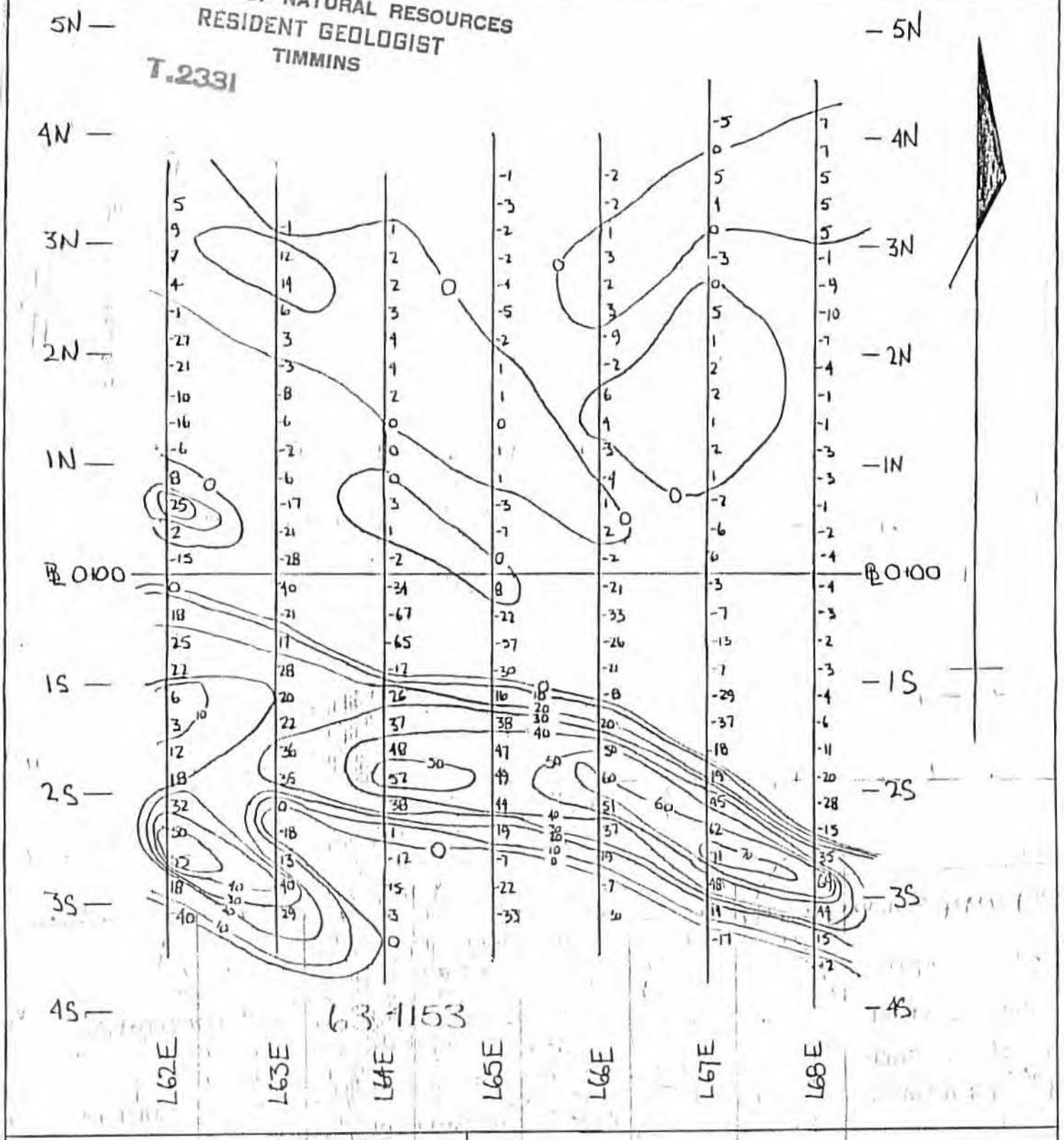
WESTMIN RESOURCES LIMITED

DETOUR PROJECT

PROTON PRECESSION MAGNETOMETER SURVEY

INPUT 4

SURVEY BY R EVOY	SCALE 1:5000	INSTRUMENT EDA PPM-300
DRAWN BY REVOY	DATE FEBRUARY 1982	



WESTMIN RESOURCES LTD.

DETOUR PROJECT
INPUT 8

FRASER FILTERED VLF SURVEY

Grid Line with filtered data

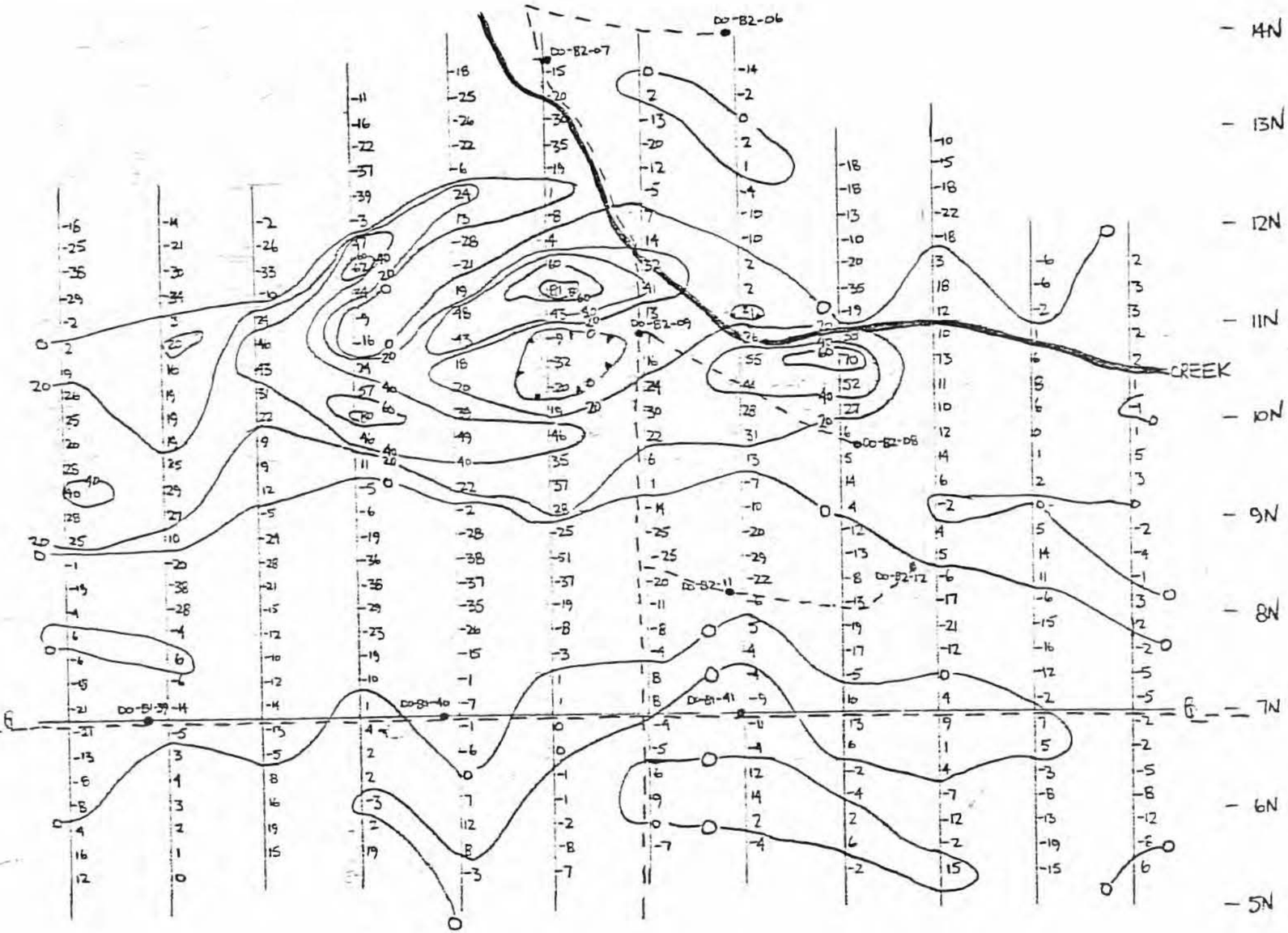
Fraser Contours (Contour Interval = 10 units)

INSTRUMENT: Geonics EM-16 TRANSMISSION STATION: Cutler, Maine

NOTE: ALL READINGS TAKEN FACING NORTH

50 0 50 100 metres

SURVEY BY: R. EVOY	DATE: MARCH 29, 1982
PRESENTED BY: R. EVOY	SCALE = 1:5,000



N

LEGEND

- CREEK
- DRILL ROAD
- DRILL HOLE (OVERBURDEN)
- FRASER FILTER CONTOURS

CONTOUR INTERVAL: 20 FRASER UNITS

VLF STATION: CUTLER

50 0 50 100 (metres)

PROPERTY OF
MINISTRY OF NATURAL RESOURCES
RESIDENT GEOLOGIST
TIMMINS

T.2391

63.4153

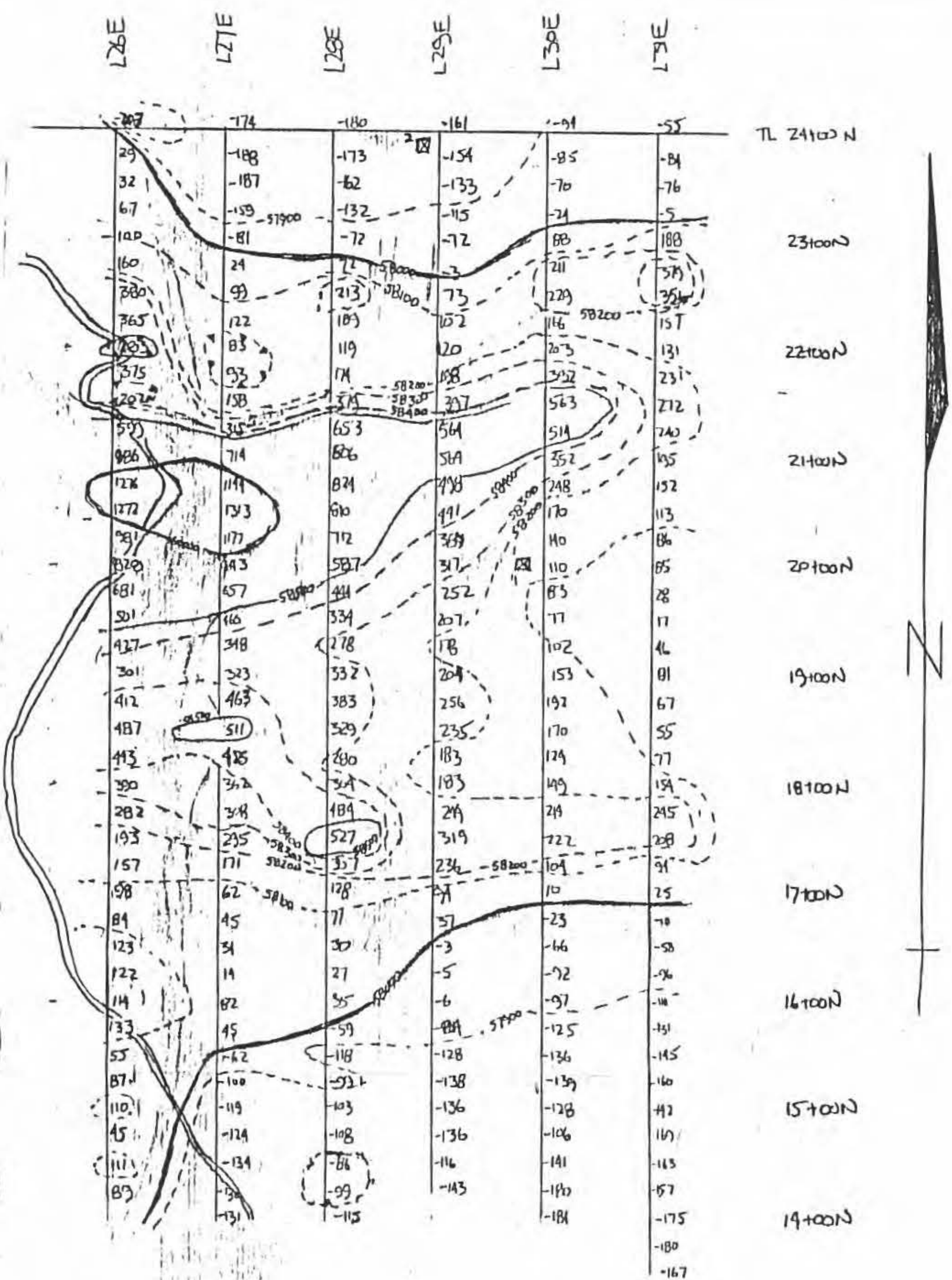
WESTMIN RESOURCES LIMITED

DETOUR PROJECT

DO-81-39 ⟶ DO-81-42

FRASER FILTERED V.L.F. SURVEY AREA 3

SURVEY BY: D. HEALY	DATE: MARCH & APRIL, 1982
FILTERED BY: R EVOY	SCALE: 1:5000



WESTMIN RESOURCES LIMITED

DETOUR PROJECT

PROTON PRECESSION MAGNETOMETER SURVEY

INPUT 5

63.4153

GRID LINE WITH STATION READINGS MINUS 58000 GAMMAS

100γ interval contour

MAGNETIC CONTOUR

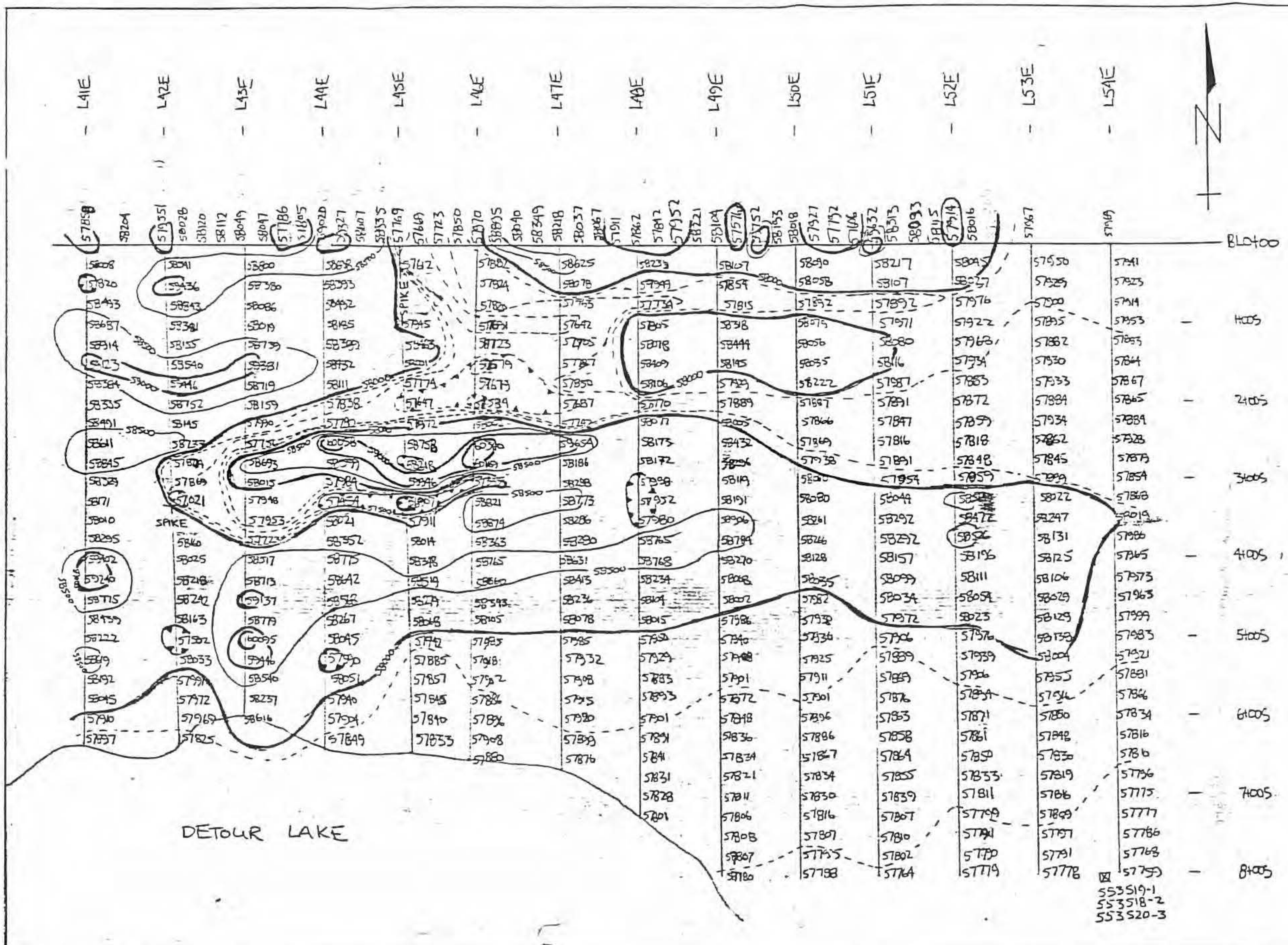
500 γ interval contour

MAGNETIC DEPRESSION

1000 γ interval contour

SURVEY BY: R EVOY
DRAWN BY: R EVOY
DATE: FEBRUARY 6, 1982
INSTRUMENT: EDA PPM-300
TUNING FIELD: 58000
SCALE 1:5000

50 0 50 100
(metres)



LEGEND

57815 / 58318 / 58444 — Gridline with Station Readings (Corrected to 58000 gammas)

1000 γ CONTOUR (AT 58000, 59000, 60000 γ's)

500 γ CONTOUR (AT 58500)

100 γ CONTOUR (AT 57900, 57800, 57700, 57600 γ's)

MAGNETIC DEPRESSION

TUNING FIELD = 58,000 GAMMAS

☒ CLAIM POST

T.2331

INSTRUMENT: EDA PPM-300/400

50 0 50 100 (metres)

WESTMIN RESOURCES LIMITED

DETOUR LAKE PROJECT

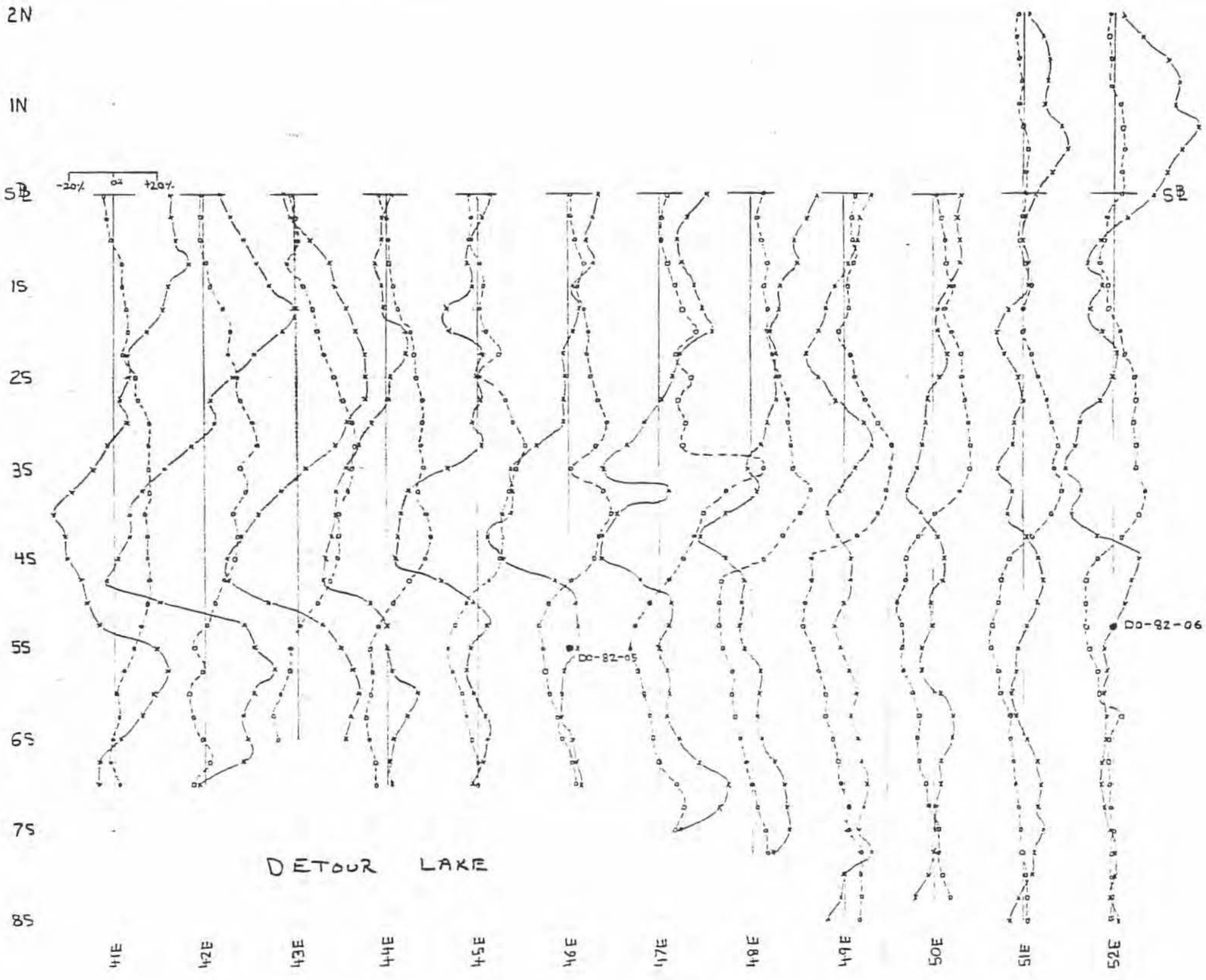
63.4153

PROTON PRECESSION

MAGNETOMETER SURVEY

INPUT 7

SURVEY BY: R. EVOY	DATE: FEBRUARY, 1982
DRAWN BY: R. EVOY	SCALE 1:5000



All readings, taken facing North

1 cm = 20%
E. = +
W. = −
IP. =
OP. =

Surveyed 01+02-04-82
by: D.R. Healey

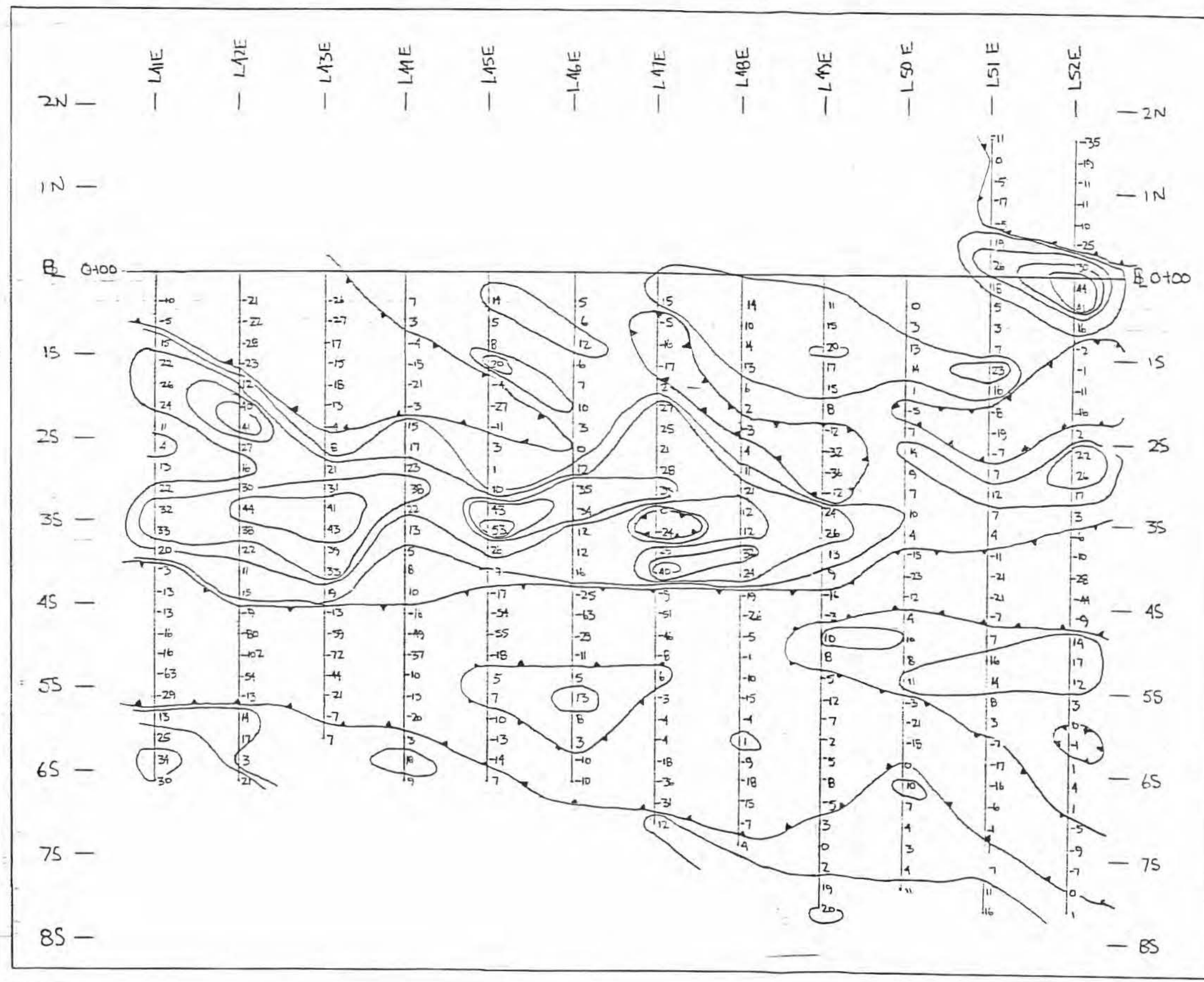
1 cm = 50m.

63 4153

DETOUR LAKE
Lines 41E. to 52E

VLF SURVEY

INPUT 7



PROPERTY OF
MINISTRY OF NATURAL RESOURCES
RESIDENT GEOLOGIST
TIMMINS

T.2331

LEGEND

GRID LINE WITH FRASER FILTERED DATA

FRASER CONTOURS
(CONTOUR INTERVAL = 10 POSITIVE UNITS)

TRANSMISSION STATION : CUTLER, MAINE

INSTRUMENT: GEONICS EM-16

NOTE: ALL READINGS TAKEN FACING NORTH

50 0 50 100
metres

63.4153

WESTMIN RESOURCES LTD.

DETOUR PROJECT

FRASER FILTERED VLF SURVEY

INPUT 7

SURVEY BY : D. Healy	DATE : April, 1982
PRESENTED BY: R. Eudy	SCALE = 1:5,000

WESTMIN RESOURCES LIMITED

DEVOUR PROJECT

PROTON PRECESSION MAGNETOMETER SURVEY 63.4153

INUT GRID 7 (NORTH HALF)

5B002 Grid Line with Station Readings

Magnetic Depression

1000γ interval Contour

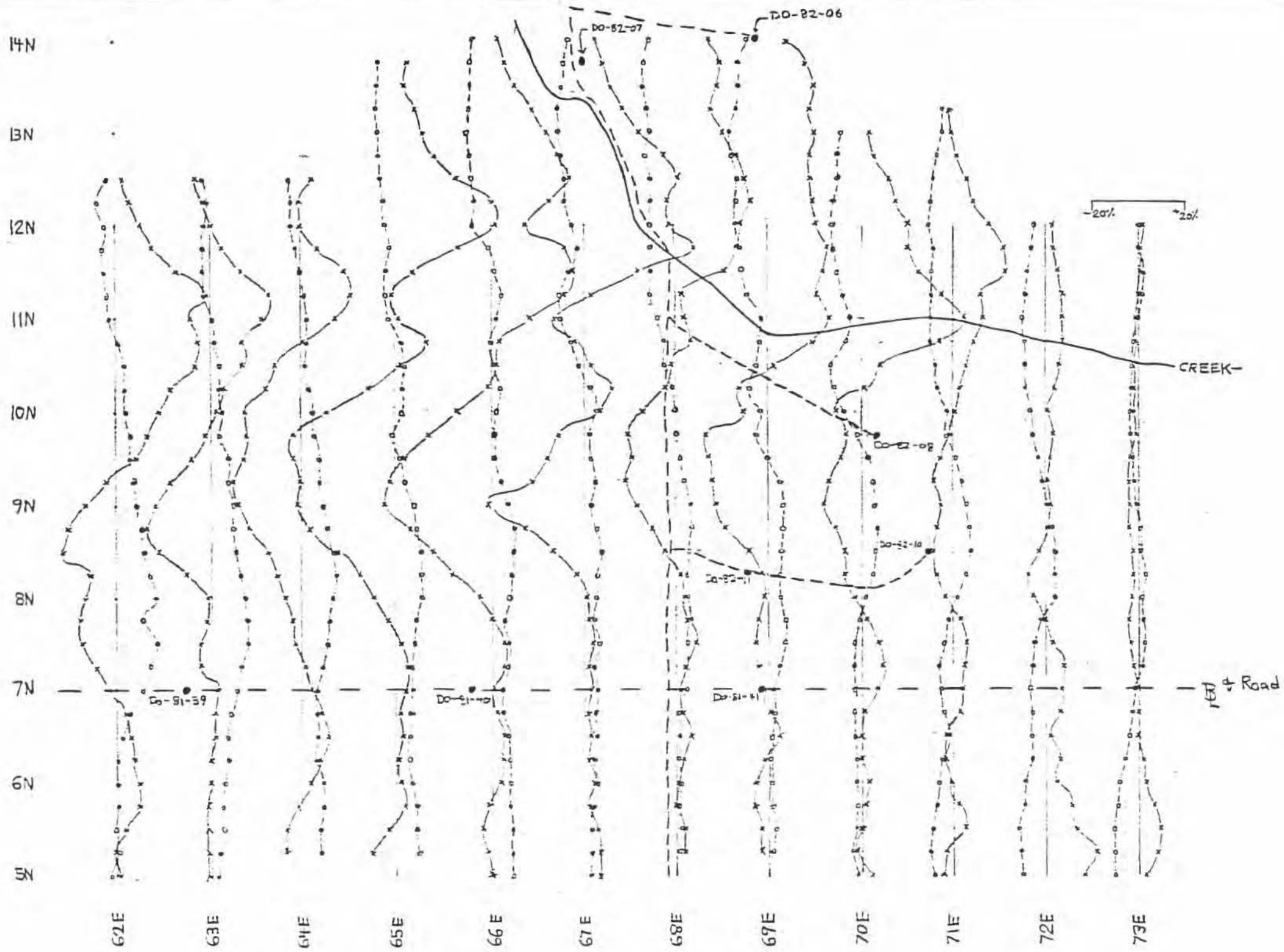
500γ interval Contour

100γ interval Contour

Drill Road

50 0 50 100 (metres)

SURVEY BY: R. EVOY
DRAWN BY: R. EVOY
DATE: FEBRUARY, 1982
INSTRUMENT: EDA-PPM-300
TUNING FIELD: 58000γ
SCALE = 1:5,000

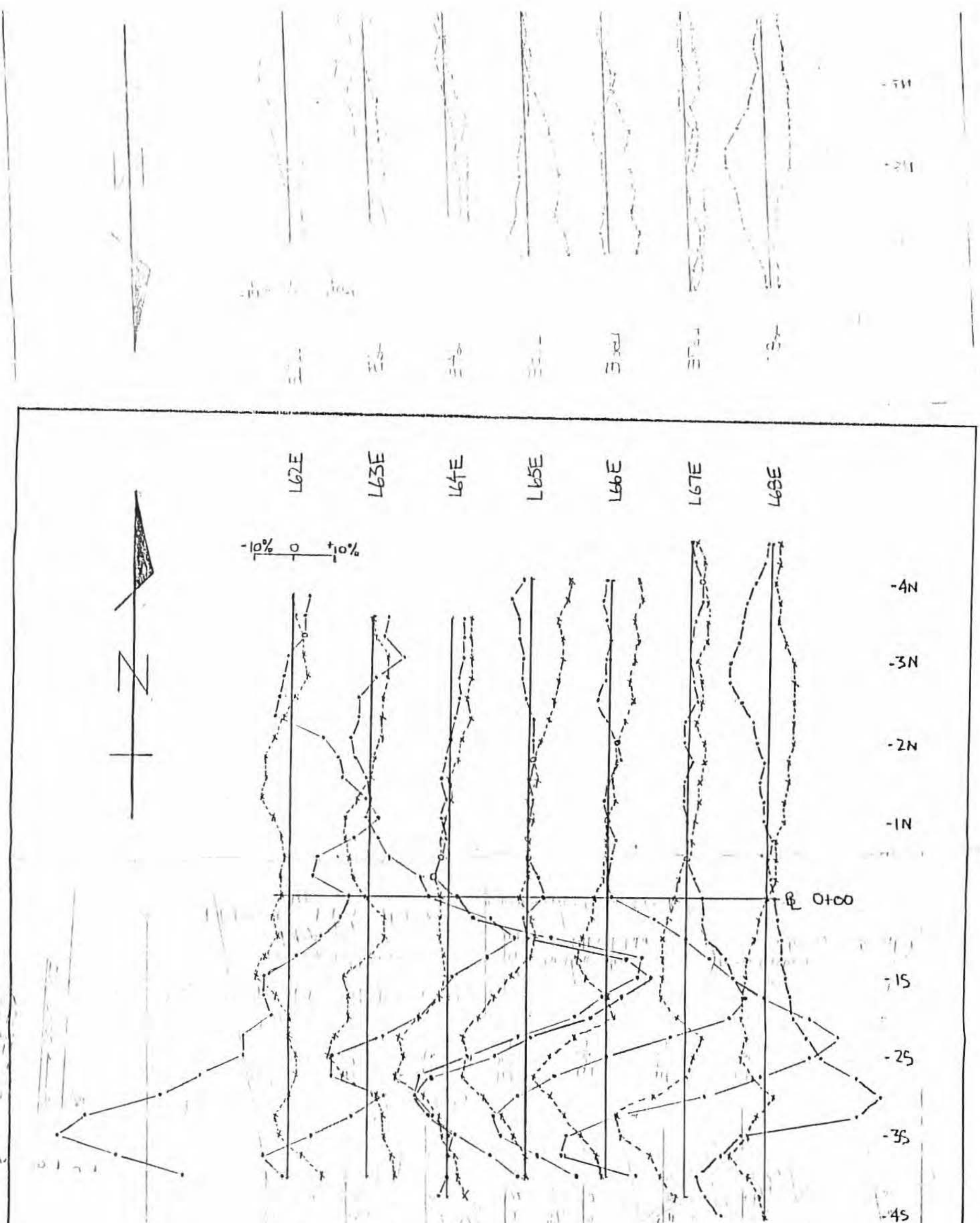


All readings, taken facing North
1 cm = ± 20%
E. = +
W. = −
IP = ×
OP = o
Surveyed 30+31-03-82
by: D.R. Healey

1 cm = 50 m.
---- Rd

63.4153

DO·81·39-42
VLF SURVEY
AREA 3



63.1153

WESTMIN RESOURCES LIMITED

DETOUR PROJECT

V.L.F SURVEY, L62E to L68E

INPUT 8

IN PHASE

QUADRATURE

INSTRUMENT: EM-16

PROFILE SCALE: 1cm = 10%

STATION : CUTLER

50 0 50 100
(metres)

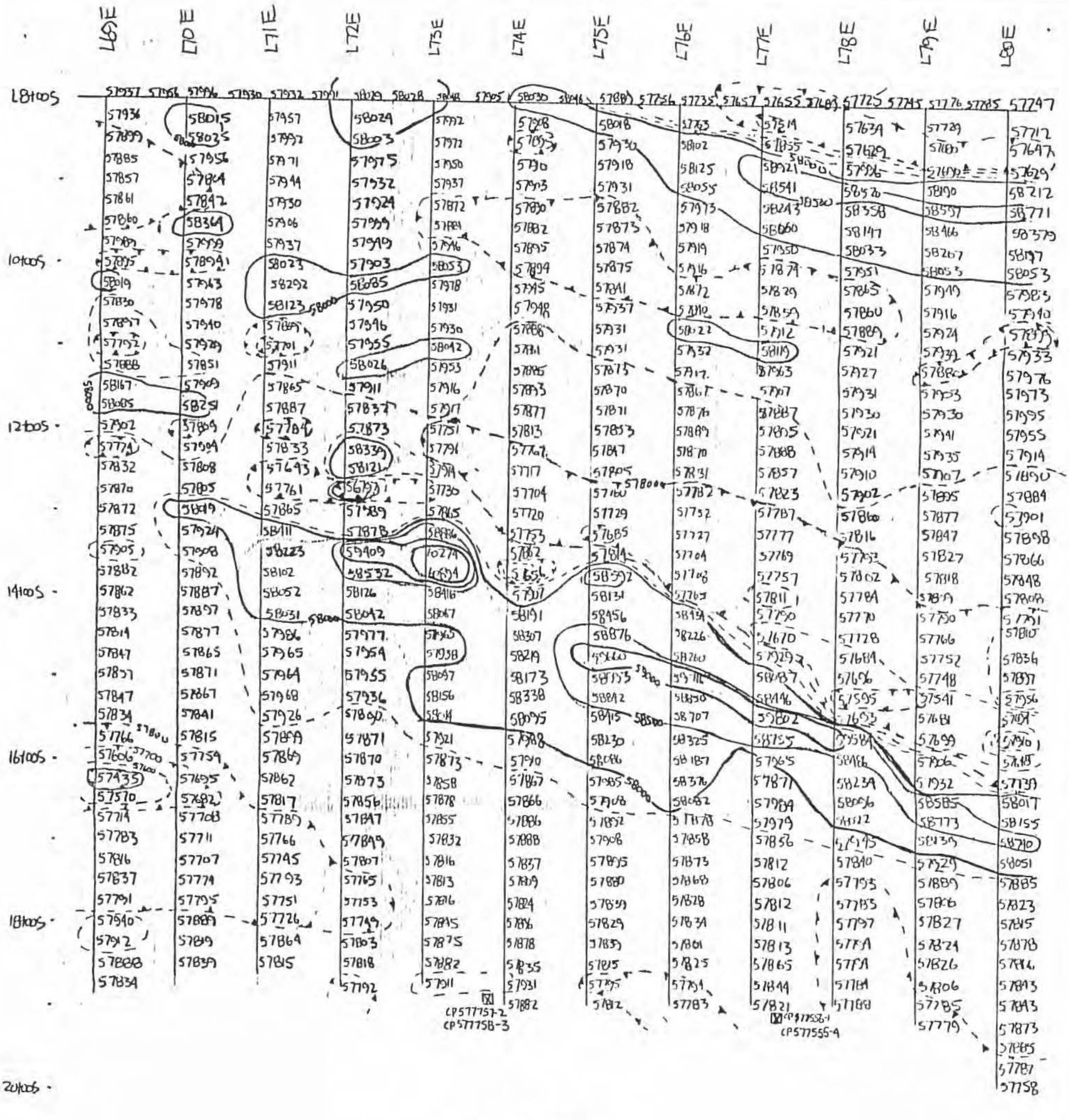
SURVEY BY: R. EVOY

DRAWN BY: R. EVOY

DATE : MARCH 24, 1982

SCALE 1:5,000

Note : All readings taken facing North.



WESTMIN RESOURCES LIMITED

DETOUR PROJECT

PROTON PRECESSION MAGNETOMETER SURVEY

INPUT 9

SURVEY BY R. EVEY
DRAWN BY R. EVEY
DATE: FEBRUARY 22, 1982
INSTRUMENT: EDA PPM-300
TUNING FIELD: 58000γ

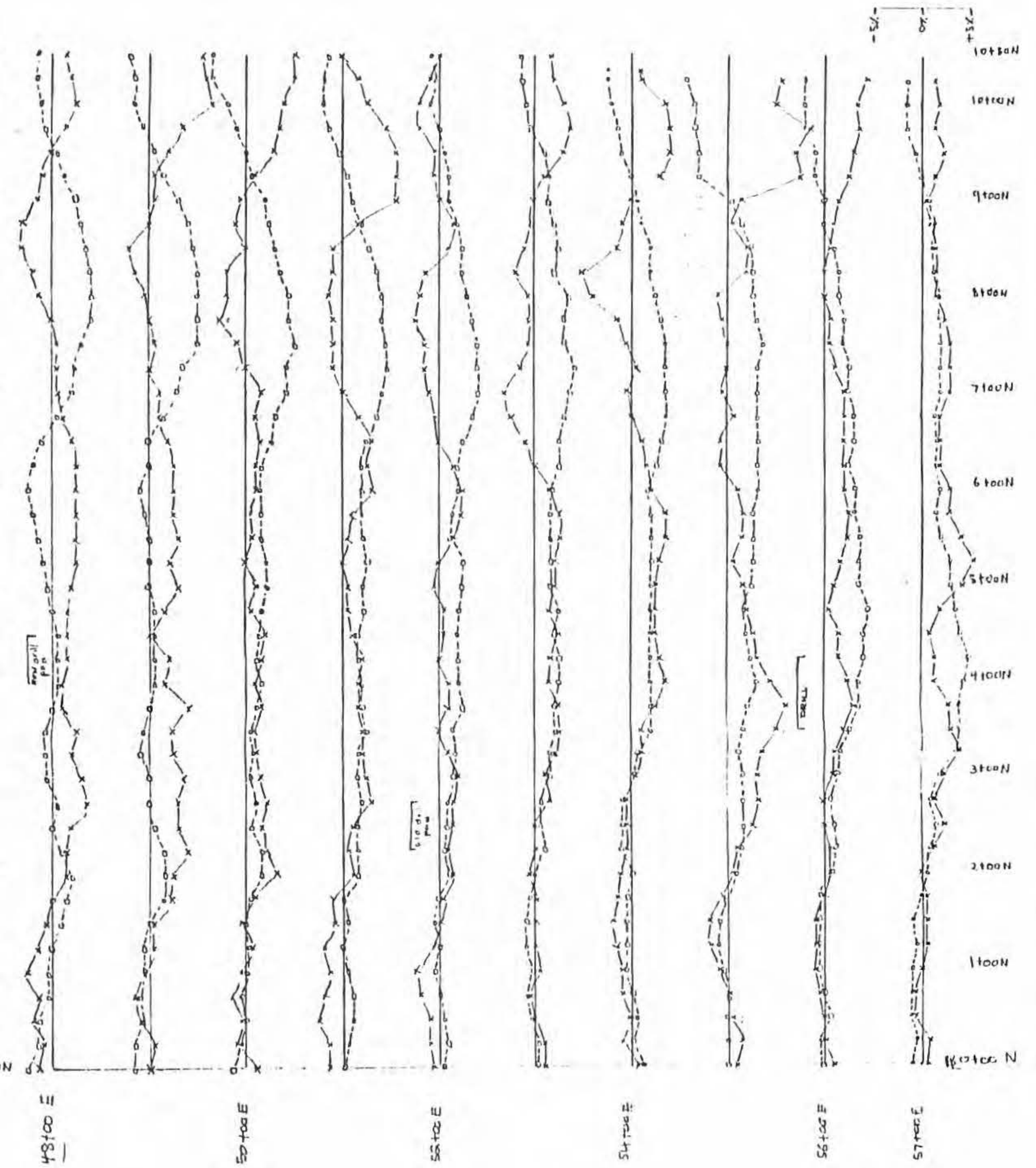
SCALE: 1:5000

57812 Grid line with station reading

63.4153

⊠ claim Post

Magnetic contour



+ to the West
− to the East
1 cm = 5%
stn Culler

1cm = 50m. (1:5,000)

All readings taken facing North

IP = x—x
OP = o—o

63 1153

WESTMIN RESOURCES LTD.

DETOUR PROJECT

Sunday Lake Grid

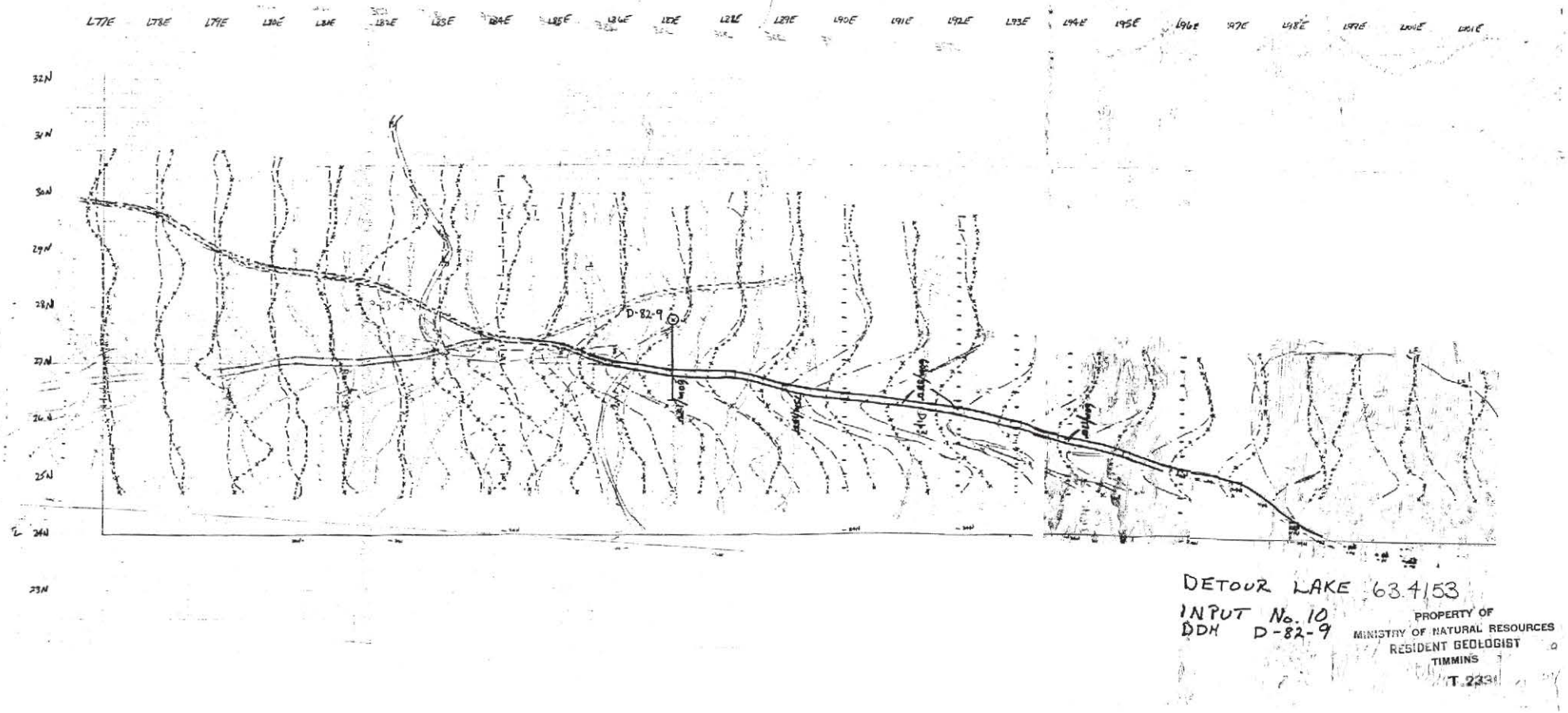
VLF SURVEY

BY D. HEALEY MARCH 23/82

INPUT 15

888 Hz 150 m cable

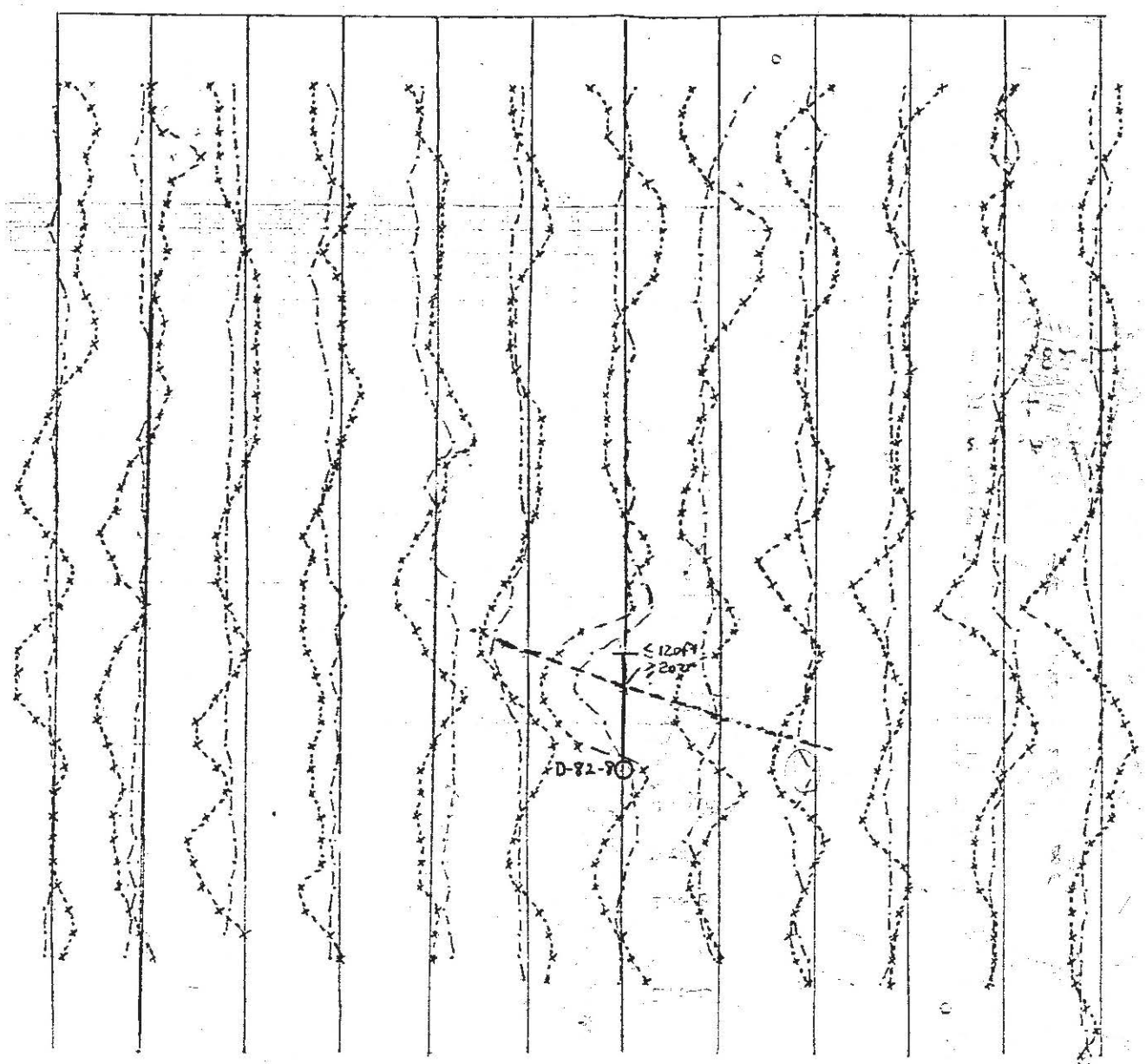
1cm = 50m 1cm = 5% -|+



DETOUR LAKE 63.4153

INPUT No. 10

DDH D-82-9



7L 8+00S
9+00S
10+00S
11+00S
12+00S
13+00S
14+00S
15+00S
16+00S
17+00S
18+00S
19+00S
20+00S

MAX-MIN II PROFILES FOR 888 frequency
WESTMIN RESOURCES LTD.
DETOUR PROJECT
SCALE - HORIZONTAL 1CM:50M

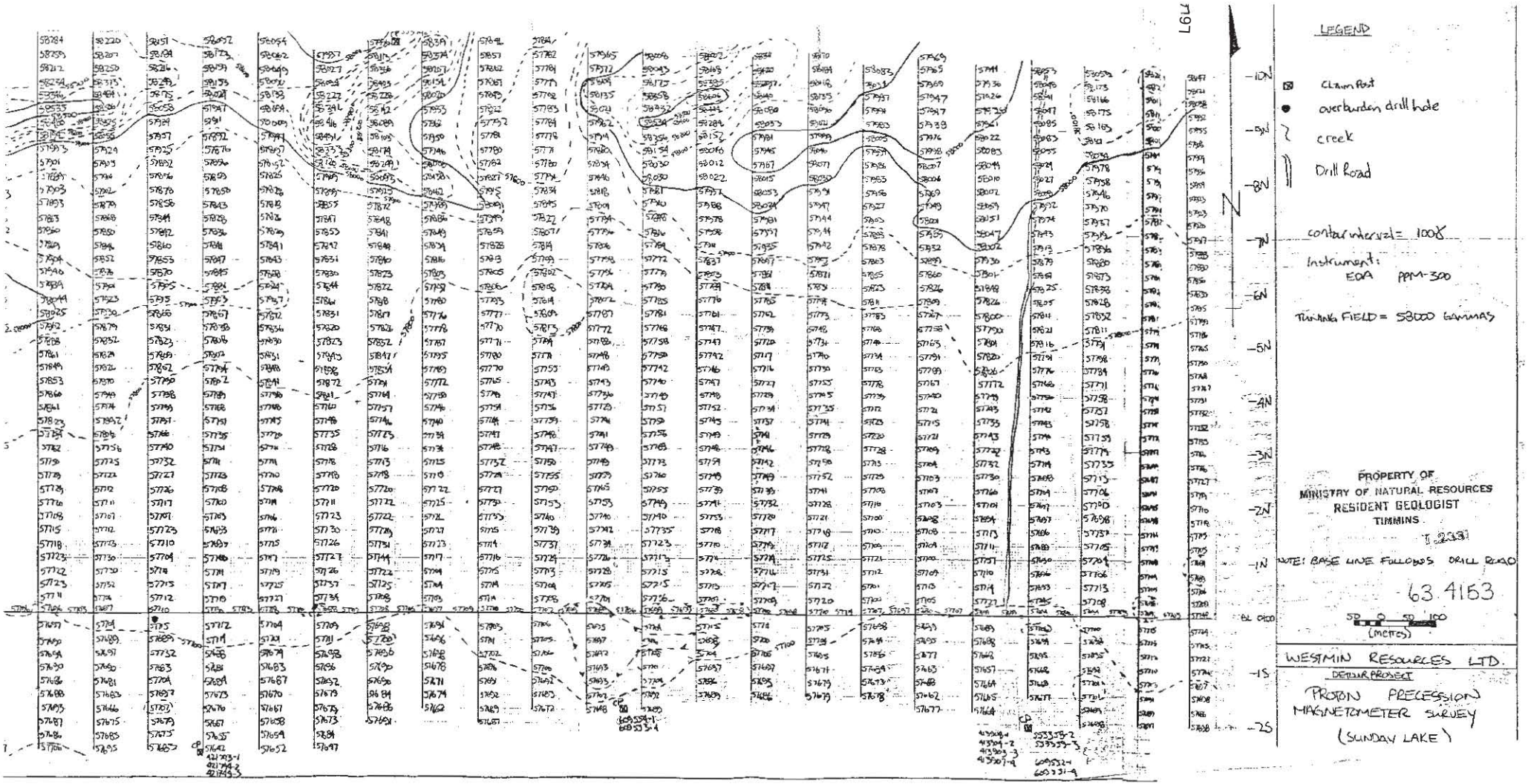
Max-Min II Profiles for 888 frequency
Westmin Resources Ltd.
Detour Project
Scale - Horizontal 1 cm:50 m

Detour Lake
Input 9

PROPERTY OF
MINISTRY OF NATURAL RESOURCES
RESIDENT GEOLOGIST
TIMMINS

T 2331

DETOUR LAKE
INPUT NO. 9


LEGEND
Claim Post
overburden drill hole
creek
Drill Road
contour interval = 100ft
Instrument:
EDA APPM-300
TUMAGA FIELD = 58000 GAMMAS
PROPERTY OF
MINISTRY OF NATURAL RESOURCES
RESIDENT GEOLOGIST
TIMMINS
I 2391
NOTE: BASE LINE FOLLOWS DRILL ROAD
63 4153
50 0 50 100
(METRES)
WESTMIN RESOURCES LTD.
DEMUR PROJECT
PROTON PRECESSION
MAGNETOMETER SURVEY
(SUNDAY LAKE)