KIDD CREEK MINES LTD.

GEOPHYSICAL REPORT

ON

TISDALE 52

NTS: 42-A/11

PROJ. #981

OCTOBER, 1985

D. LONDRY

SUMMARY AND RECOMMENDATIONS

No bedrock conductors were detected in EM surveys carried out on the Tisdale 52 property. Ultramafics on the property are outlined in the magnetic survey.

No further geophysics is recommended.

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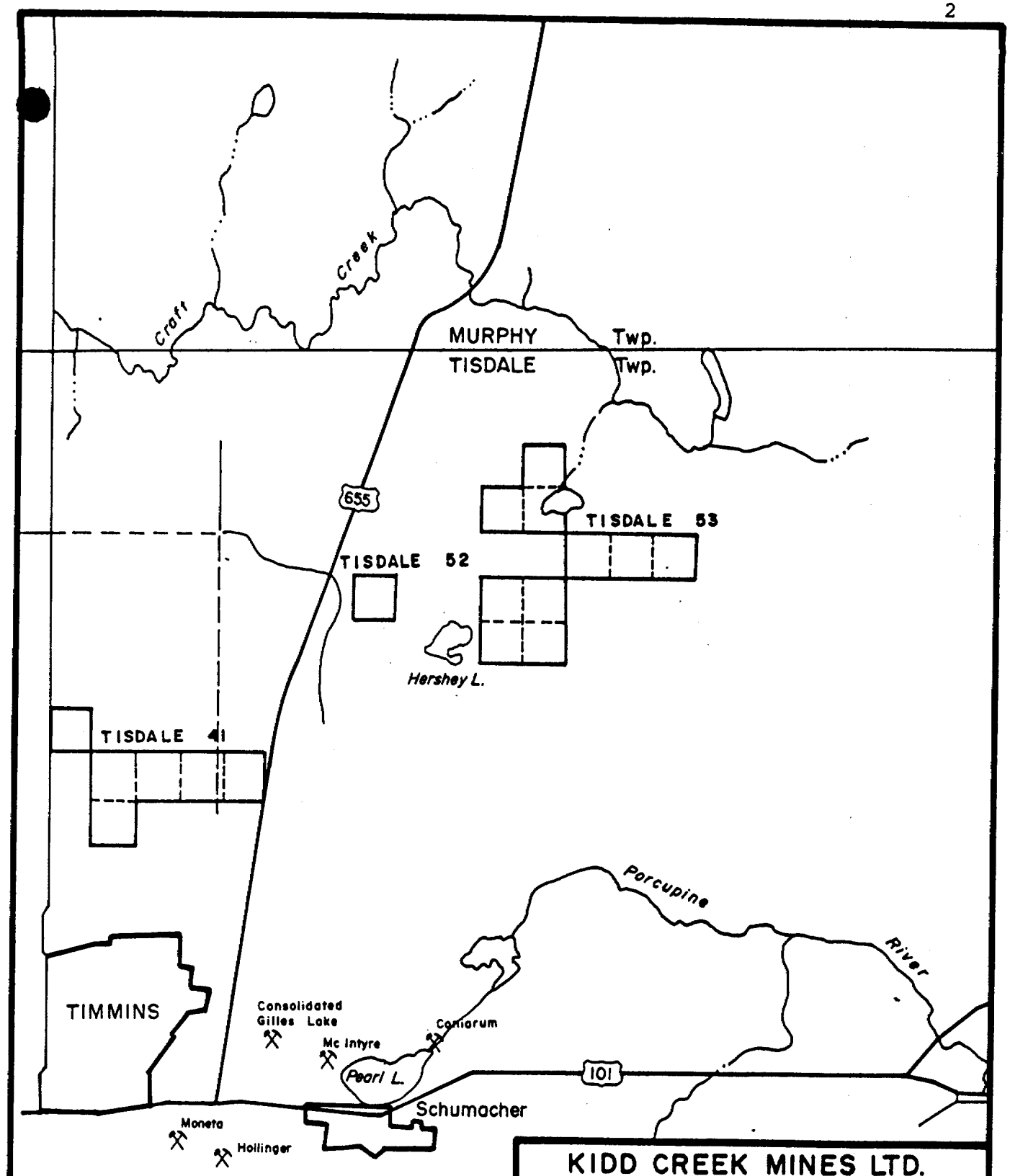
INTRODUCTION

During August 1985, Kidd Creek Mines Ltd. carried out magnetic, VLF-EM and horizontal loop EM surveys on claim 851801 in Tisdale Township. The claim is located 5.5 km north of the city of Timmins in the SE 1/4, N 1/2 of Concessions V, Lot 9 (Figure 1).

The claim is accessible along the Hershey Lake road off Highway 655. The field crew included R. Daigle, S. Ryan and S. Olink.



KIDD CREEK MINES LTD.

Exploration Division — Timmins, ONTARIO

TISDALE Twp. CLAIMS

TISDALE Twp.

LOCATION MAP

SCALE: 1:50,000		Data: Londry
Drawn: G & L	Project N°: 981	Date: 27/10/85

FIGURE 1

PREVIOUS WORK

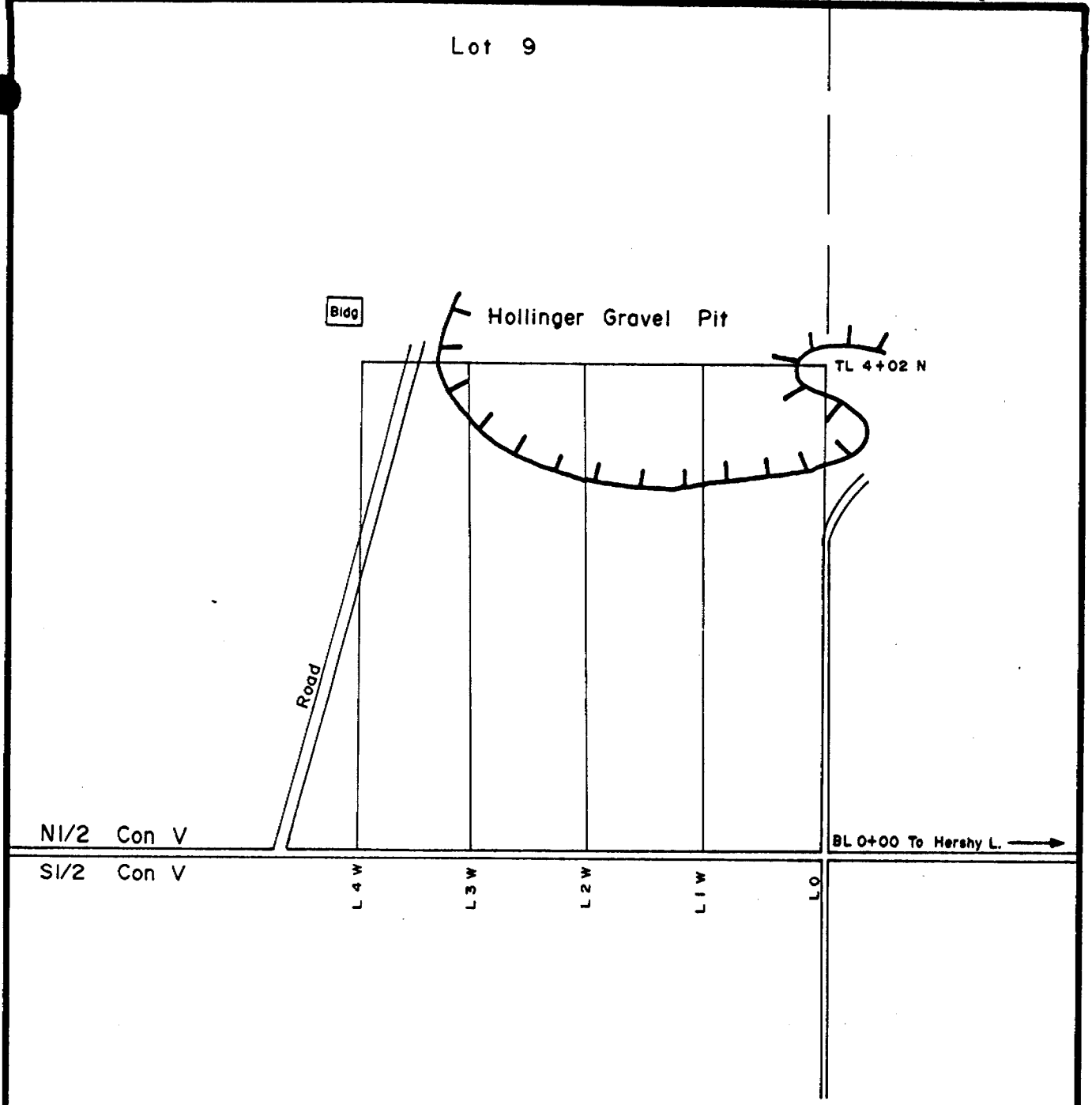
In 1981 Esso Minerals Canada carried out a VLF-EM survey on the claim, then held by Hollinger Argus. No bedrock conductors were detected.

SURVEY DESCRIPTIONS

An east-west base line was established along the south edge of claim 851801. Grid lines were cut every 100 m and picketed every 20 m (Figure 2).

The horizontal loop EM survey was carried out with an Apex Parametrics Max Min I using a coil separation of 160 m. The in-phase and quadrature components of the secondary field were measured as a percentage of the primary field. Readings were taken every 20 m at frequencies of 444 and 1777 hertz. A total of 65 stations were sampled along 2.0 km of line.

The magnetic readings were taken with a Scintrex IGS-2/MP-4. This instrument is a proton precession magnetometer which measures the Earth's total magnetic field to an accuracy of $\pm$ .1 gamma. The diurmal drift was monitored every 30 seconds with a Scintrex MP-3 base station magnetometer located at 60 North on Line 0 West. A total of 103 readings were taken.



Lines every 100 m

Stations every 20 m

Total 2.8 km

KIDD CREEK MINES LTD.

Exploration Division — Timmins, ONTARIO

TISDALE 52

TISDALE Twp.

LINE GRID

SCALE : 1 : 5000		Data : DerWeduwen
Drawn : Milene	Project N° : 981	Date : 08/07/85

FIGURE 2

A Scintrex IGS-2/VLF-4 was used in the VLF-EM survey. Parameters measured include the horizontal field strength and the inphase and quadrature components of the vertical field, normalized to the horizontal field. The transmitter station used was Cutler Maine which transmits at a frequency of 24.0 k Hz. The number of stations sampled in this survey was 103.

RESULTS

Plan maps of the results, plotted at a scale of 1:2000, can be found in the pockets at the end of this report.

No bedrock conductors were detected in the horizontal loop EM survey (Maps 3 and 4). Positive in-phase readings in the results from both frequencies occur at the north end of Lines 200 and 300 West. This is a short cable effect caused by a steep embarkment at the edge of the Hollinger gravel pit. Anomalous readings at the south end of Lines 300 and 400 West in both the VLF and horizontal loop results are due to a power line. The source of weak VLF anomalies, elsewhere on the property, are surficial.

A linear magnetic anomaly which strikes east northeast across the north half of the claim reflects serpentinite (Map 1). The source of the circular feature on Line 100 West is also likely ultramafics.

Douglas Londry.

D. LONDRY

020

KIDD CREEK MINES LTD.

GEOPHYSICAL REPORT

ON

TISDALE 53

NTS: 42-A/11

PROJ # 981

OCTOBER 1985

D. LONDRY

SUMMARY AND RECOMMENDATIONS

Magnetic, VLF-EM and horizontal loop EM surveys were carried out on the Tisdale 53 property.

The magnetic survey outlines east northeast striking ultramafics. A bedrock conductor detected in the horizontal loop EM survey has been previously tested by diamond drilling.

It is recommended that an I.P. survey be carried out on Lines 300 and 400 West from 400 to 1200 South.

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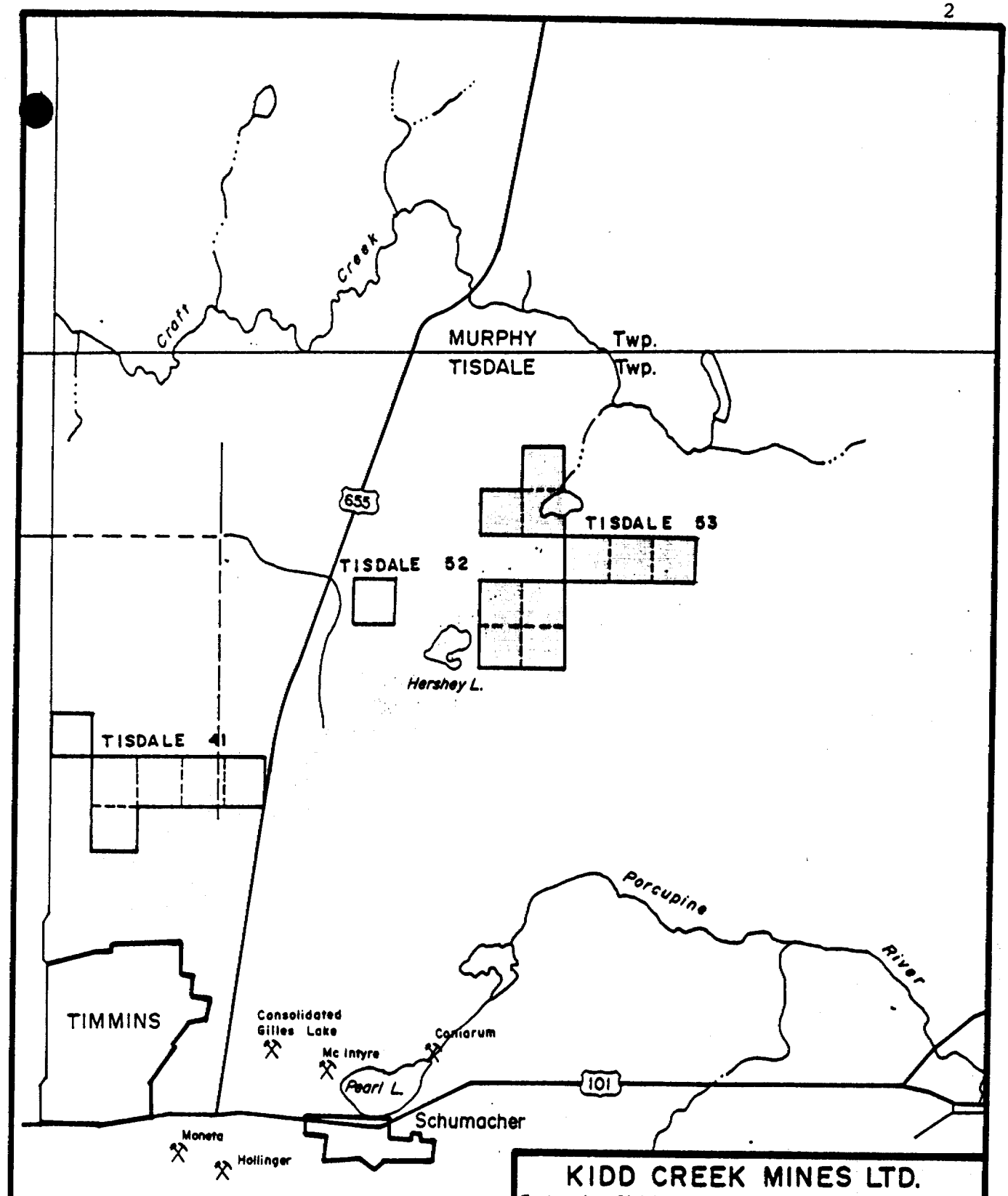
INTRODUCTION

During August 1985, Kidd Creek Mines Ltd. carried out magnetic, VLF-EM and horizontal loop EM surveys on the Tisdale 53 property. The property consists of 10 contiguous claims in the northern half of Tisdale Township. The claims are numbered as follows:

P 825784
P 831692 - P 831694 inclusive
P 831839 - P 831844 inclusive

The property is located about 6 km northeast of the city of Timmins. It is accessible along a gravel road from Highway 655. The field crew included R. Daigle, B. Keen, S. Taylor and S. Olink.



LEGEND

⚒ PAST or PRODUCING MINE

KIDD CREEK MINES LTD.

Exploration Division — Timmins, ONTARIO

TISDALE Twp. CLAIMS

TISDALE Twp.

LOCATION MAP

FIGURE 1

SCALE: 1:50,000		Data: Londry
Drawn: G & L	Project N°: 981	Date: 27/10/85

PREVIOUS WORK

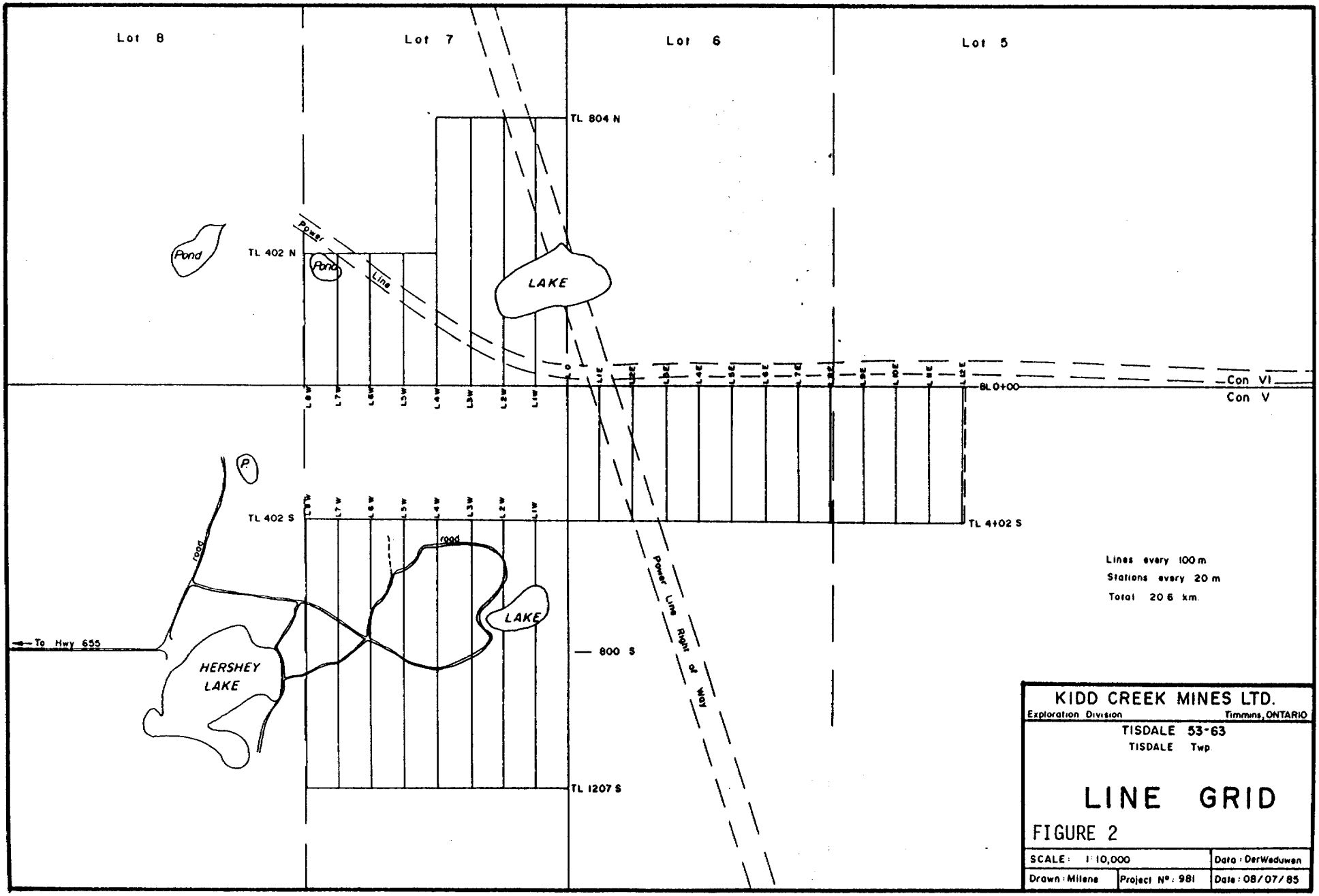
In 1964 Keevil Exploration ran a magnetic survey over the three northwest claims on the property. The source of a linear magnetic high, striking N70^{0}E along the southern edge of these claims, was interpreted to be serpentinite. A horizontal loop EM survey was not completed because of interference from power lines.

In 1981 and 1982, Esso Minerals Canada carried out VLF-EM and magnetic surveys over the property, then held by Hollinger Argus. Northeast striking conductors and parallel zones of high magnetic susceptibility were defined.

An I.P. survey was also carried out in 1984 for Labrador Exploration on the three northwest claims. A zone characterized by high chargeability was detected on claim P-831694. It is reported that Inco had previously tested a coincident horizontal loop EM anomaly by drilling. The hole intersected a graphitic horizon in mafic volcanics.

SURVEY DESCRIPTIONS

North-south grid lines were cut every 100m and picketed every 20m (Figure 2). The 0+00 N, 0+00 E point on the grid is located at a survey post at the boundary between Lots 6 and 7, Concessions IV and V.


Lot 8
Lot 7
Lot 6
Lot 5
TL 804 N
TL 402 N
TL 402 S
TL 1207 S
TL 4+02 S
BL 0+00
800 S
Con VI
Con V
Pond
Pond
Power
Line
LAKE
LAKE
HERSHEY LAKE
road
road
P.
To Hwy 655
Power Line Right of Way
L8W
L7W
L6W
L5W
L4W
L3W
L2W
L1W
L0
L1E
L2E
L3E
L4E
L5E
L6E
L7E
L8E
L9E
L10E
L11E
L12E
Lines every 100 m
Stations every 20 m
Total 20.6 km.
KIDD CREEK MINES LTD.
Exploration Division
Timmins, ONTARIO
TISDALE 53-63
TISDALE Twp.
LINE GRID
FIGURE 2
SCALE: 1:10,000
Data: DerWeduwen
Drawn: Milene
Project No: 981
Date: 08/07/85

The horizontal loop EM survey was carried out with an Apex Parametrics Max Min I using a coil separation of 160m. The in-phase and quadrature components of the secondary field were measured as a percentage of the primary field. Readings were taken every 20m at frequencies of 444 and 1777 Hz. A total of 614 stations were sampled along 18 km of line.

The magnetic readings were taken with a Scintrex IGS-2/MP-4. This instrument is a proton precession magnetometer which measures the Earth's total magnetic field to an accuracy of $\pm$ .1 grammas. The diurnal drift was monitored every 30 seconds with a Scintrex MP-3 base station magnetometer, located at 300 North on Line 500 West. A total of 881 readings were taken.

A Scintrex IGS-2/VLF-4 was used in the VLF-EM survey. Parameters measured include the horizontal field strength and in-phase and quadrature components of the vertical field, normalized to the horizontal field. The transmitter station used was Cutler Maine which transmits at a frequency of 24.0 kHz. The number of stations surveyed was 881.

RESULTS

The results are plotted on plan maps at a scale of 1:5000.

As in previous magnetic surveys, east northeast striking ultramafics (serpentinite) are outlined by high magnetic anomalies.

Weak conductors, detected in the VLF-EM survey, also strike east northeast. The stronger VLF anomalies have corresponding quadrature anomalies in the high frequency horizontal loop results. The poor conductivity thickness suggests that the source of the anomalies is likely surficial.

An I.P. survey should be carried out on Lines 300 and 400 West from 400 to 1200 South. This will test the VLF anomaly at 750 South. It may also help explain why the magnetic anomaly, over the lake to the east, ends at this point.

A definite bedrock conductor was detected on Line 400 West at 620 North. The width of the conductor is 20m and the conductivity thickness is 14 mhos; the dip cannot be determined because the anomaly is incomplete. This appears to be the graphitic horizon drilled by Inco.

Douglas Londry.

DOUG LONDRY

KIDD CREEK MINES LTD.

GEOPHYSICAL REPORT

ON

TISDALE 41

N.T.S.: 42-A-11

PROJ. #981

OCTOBER, 1985

D. LONDRY

SUMMARY AND RECOMMENDATIONS

No bedrock conductors were detected in EM surveys carried out on the Tisdale 41 property. A magnetic survey outlined east northeast striking ultramafics.

An IP survey should be carried out to test for disseminated sulphides, which may be associated with gold mineralization, along the volcanic-ultramafic contacts.

page

LIST OF MAPS

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INTRODUCTION

During September 1985, Kidd Creek Mines Ltd. carried out magnetic, VLF-EM and horizontal loop EM surveys on their Tisdale 41 property. The property is located about 2 kilometres north of the City of Timmins in Lots 10, 11 and 12, Concession VI, Tisdale Township (Figure 1). It is bordered by McLean Drive to the west and by Highway 655 to the east.

The six claims are numbered as follows:

P-849485, P-849486

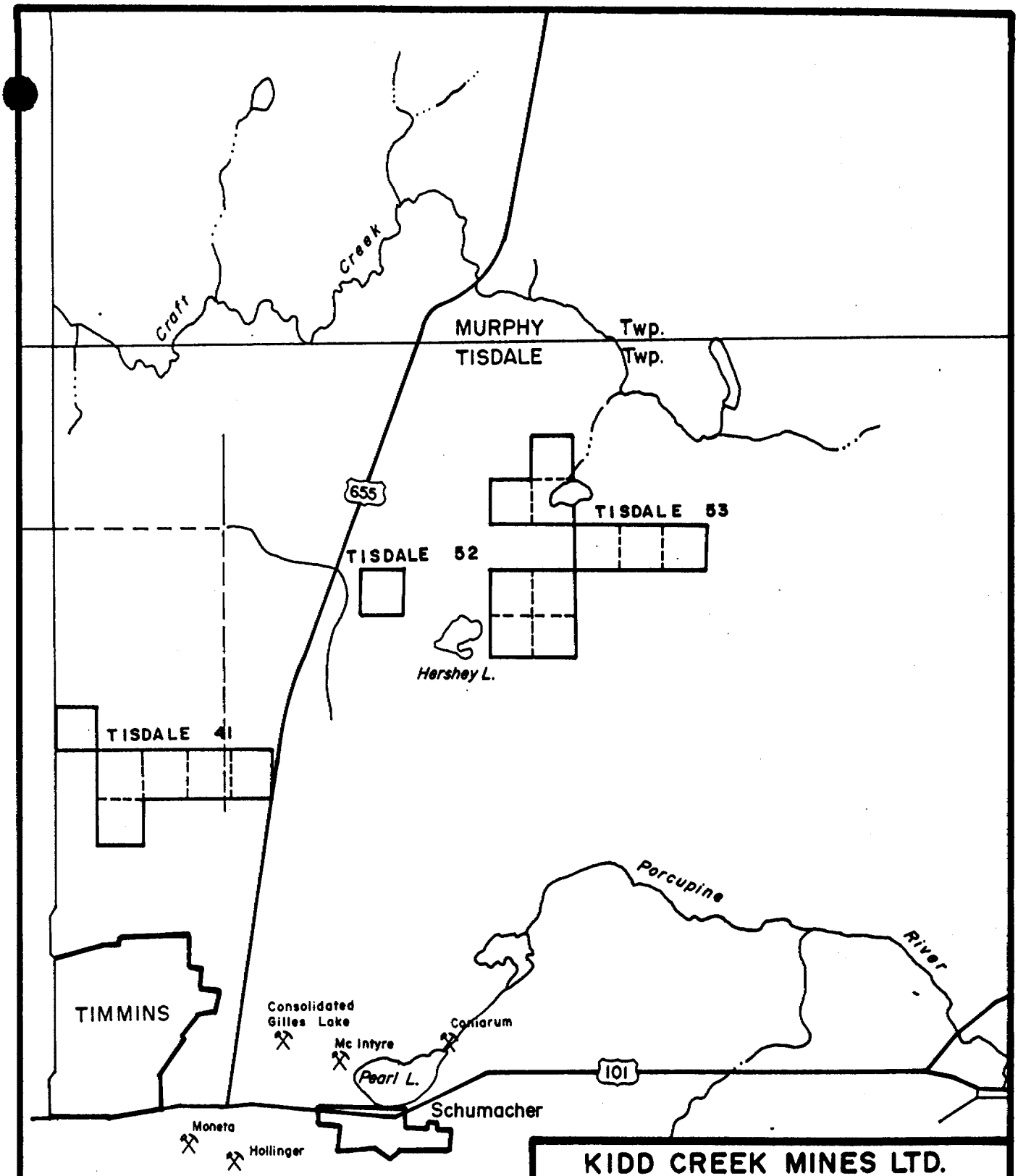
P-851802, P-851803

P-851880, P-851881

The field crew included R. Daigle, S. Olink and B. Keen.

PREVIOUS WORK

In 1981/82 Esso Minerals Canada ran magnetic and VLF-EM surveys on the property. High magnetic anomalies, striking northeast, were interpreted to reflect serpentinite. The source of VLF anomalies was interpreted to be conductive overburden.



LEGEND

⚒ PAST or PRODUCING MINE

KIDD CREEK MINES LTD.

Exploration Division — Timmins, ONTARIO

TISDALE Twp. CLAIMS

TISDALE Twp.

LOCATION MAP

SCALE: 1:50,000		Date:
Drawn: G & L	Project N°: 981	Date: 27/10/85

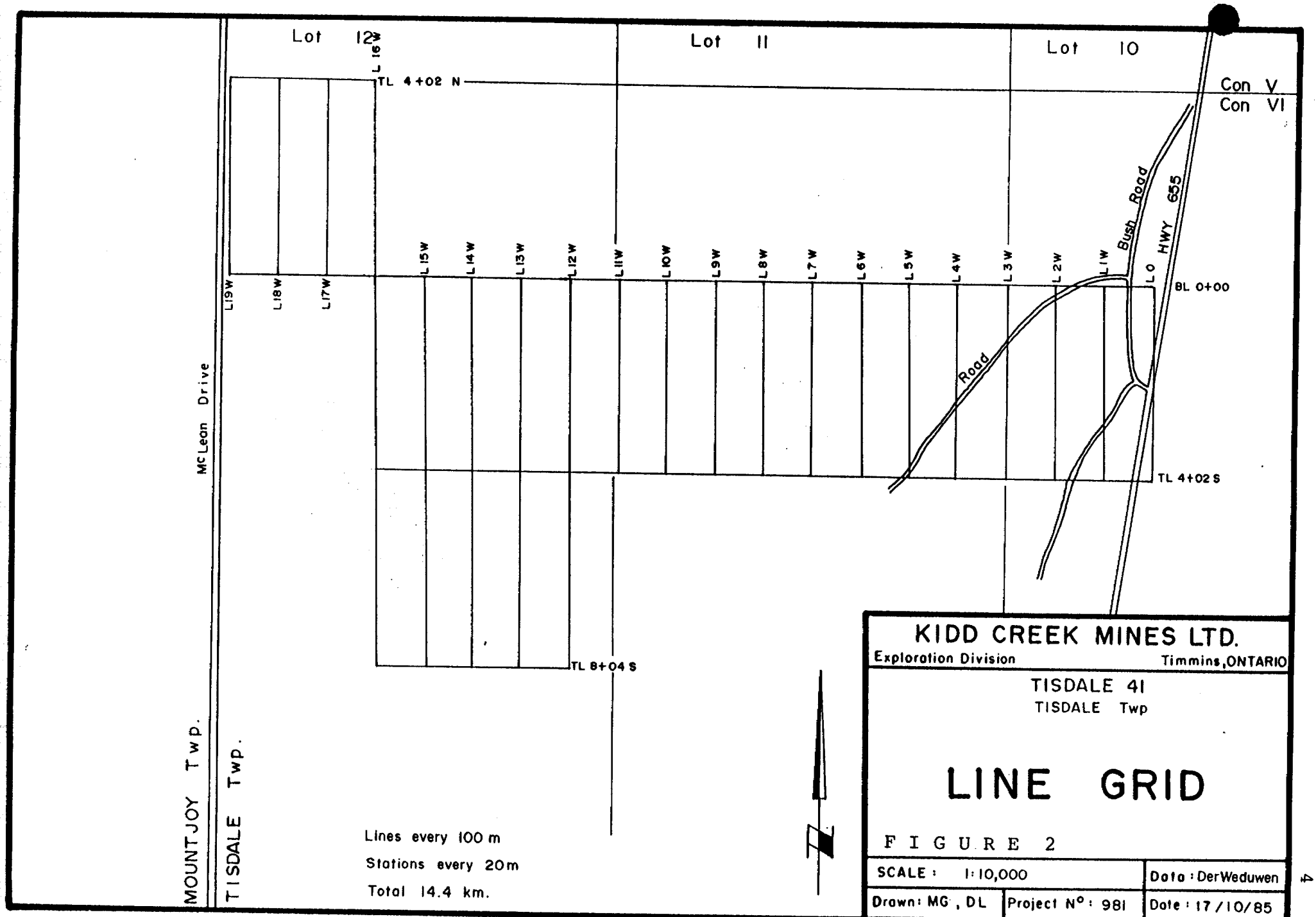
SURVEY DESCRIPTIONS

An east-west base line was established 400 metres south of the boundary between Concession V and VI. North-south grid lines were cut every 100 metres and picketed every 20 metres (Figure 2).

The horizontal loop EM survey was carried out with an Apex Parametrics Max Min I using a coil separation of 160 metres. The in-phase and quadrature components of the secondary field were measured as a percentage of the primary field. Readings were taken every 20 metres at frequencies of 444 and 1777 Hz. A total of 332 stations were sampled along 9.2 kilometres of line.

The magnetic readings were taken with a Scintrex IGS-2/MP-4. This instrument is a proton precession magnetometer which measures the Earth's total magnetic field to an accuracy of $\pm$ .1 gammas. The diurnal drift was monitored every 30 seconds with a Scintrex MP-3 base station magnetometer located at 0 North on Line 200 West. A total of 488 readings were taken.

A Scintrex IGS-2/VLF-4 was used in the VLF-EM survey. Parameters measured include the horizontal field strength and in-phase and quadrature components of the vertical field, normalized to the horizontal field. The transmitter station used was Cutler Maine which transmits at


Lot 12
Lot 11
Lot 10
L 16W
TL 4+02 N
Con V
Con VI
L19W
L18W
L17W
L15W
L14W
L13W
L12W
L11W
L10W
L9W
L8W
L7W
L6W
L5W
L4W
L3W
L2W
L1W
L0
BL 0+00
Bush Road
HWY 655
Road
TL 4+02 S
TL 8+04 S
McLean Drive
MOUNTJOY Twp.
TISDALE Twp.
Lines every 100 m
Stations every 20m
Total 14.4 km.
KIDD CREEK MINES LTD.
Exploration Division
Timmins, ONTARIO
TISDALE 41
TISDALE Twp
LINE GRID
FIGURE 2
SCALE : 1:10,000
Data : DerWeduwen
Drawn: MG , DL
Project N° : 981
Date : 17/10/85

a frequency of 24.0 kHz. The number of stations surveyed was 488.

RESULTS

The results are plotted on maps 1 to 4 at a scale of 1:2000.

The magnetic field over the property is dominated by two east northeast striking magnetic highs. The source of these anomalies is believed to be serpentinite units.

No bedrock conductors were detected in the horizontal loop EM survey. The anomalous high readings on Line 1900 West are due to noise from the power line along McLean Drive. The source of VLF-EM anomalies on the property are most likely surficial.

Douglas Londry

DOUGLAS LONDRY

900

Mining Lands Section

File No 2.8630

Control Sheet

TYPE OF SURVEY

✓ GEOPHYSICAL

____ GEOLOGICAL

____ GEOCHEMICAL

____ EXPENDITURE

MINING LANDS COMMENTS:

J. Hurst

Signature of Assessor

Dec 18/85

Date

append to #319/85 Dec. 27

D.L. 28630

#412/85

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

Mining Act

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s)	Township or Area
Geophysical	Tisdale Township

Claim Holder(s)	Prospector's Licence No.
Kidd Creek Mines Ltd.	T-1848

Address: P. O. Box 1140, 571 Moneta Avenue, Timmins, Ontario, P4N 7H9

Survey Company	Date of Survey (from & to)	Total Miles of line Cut
Kidd Creek Mines Ltd.	15 Day 07 Mo. 85 Yr. / 13 Day 07 Mo. 85 Yr.	30 km

Name and Address of Author (of Geo-Technical report): Doug Londry, P. O. Box 1140, 571 Moneta Avenue, Timmins, Ontario P4N 7H9

Credits Requested per Each Claim in Columns at right

		Days per Claim
Special Provisions For first survey: Enter 40 days. (This includes line cutting) For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other (VLF)	20
	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	[illegible]	Days per Claim
	Electromagnetic	
	Magnetometer	
	Radiometric	

RECEIVED

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	825784				
	831692				
	831693				
	831694				
	831839				
	831840				
	831841				
	831842				
	831843				
	831844				
	849485				
	849486				
	851801				
	851802				
	851803				
	851880				
	851881				

RECORDED
NOV -6-1985

PORCUPINE MINING DIVISION
RECEIVED
NOV - 6 1985

Total number of mining claims covered by this report of work: 17

Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits

Total Expenditures: $ ÷ 15 = Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

For Office Use Only		
Total Days Cr. Recorded: 340	Date Recorded: Nov. 6/85	Mining Recorder:
	Date Approved as Recorded: D. 85.12.3	Branch Director:

Date: Nov. 6, 1985

Recorded Holder or Agent (Signature): Douglas Londry

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: Doug Londry, Kidd Creek Mines Ltd., P. O. Box 1140, Timmins, Ontario

Date Certified: Nov. 6, 1985

Certified by (Signature): Douglas Londry

1362 (81/9)

Ministry of Natural Resources
Ontario

Report of Work
(Geophysical, Geological, Geochemical and Expenditures)

Mining Act

#319/85
28630

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.
Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s)	Township or Area
GEOPHYSICAL	TISDALE TOWNSHIP

Claim Holder(s)	Prospector's Licence No.
Kidd Creek Mines Ltd.	T-1848

Address: P. O. Box 1140, 571 Moneta Avenue, Timmins, Ontario P4N 7H9

Survey Company	Date of Survey (from & to)	Total Miles of line Cut
Kidd Creek Mines Ltd.	15 07 85 (Day / Mo. / Yr.) 13 07 85 (Day / Mo. / Yr.)	30 km

Name and Address of Author (of Geo-Technical report): Doug Londry, P. O. Box 1140, 571 Moneta Avenue, Timmins, Ontario P4N 7H9

Credits Requested per Each Claim in Columns at right

		Days per Claim
Special Provisions For first survey: Enter 40 days. (This includes line cutting) For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical - Electromagnetic	40
	- Magnetometer	20
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Man Days Complete reverse side and enter total(s) here	Geophysical - Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
P	825784	
	831692	
	831693	
	831694	
	831839	
	831840	
	831841	
	831842	
	831843	
	831844	
	849485	
	849486	
	851801	
	851802	
	851803	
	851880	
	851881	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

RECEIVED
OCT 0 [illegible]
MINING LAND SECTION

RECORDED
SEP 17 1985

PORCUPINE MINING DIVISION
RECEIVED
SEP 17 1985

Expenditures (excludes power stripping)

Type of Work Performed	Performed on Claim(s)	Total Expenditures	Total Days Credits
		$ ÷ 15 =	

Instructions
Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Total number of mining claims covered by this report of work: 17

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
1,020	Sept 17/85	
	Date Approved as Recorded	Branch Director
	85.11.21	

Date	Recorded Holder or Agent (Signature)
Sept. 17, 1985	

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: Doug Londry, P. O. Box 1140, 571 Moneta Avenue, Timmins, Ontario P4N 7H9

Date Certified	Certified by (Signature)
Sept. 17, 1985	

1362 (81/9)

REGISTERED

November 6, 1985

Report Of Work #319

Kidd Creek Mines Ltd
P.O. Box 1140
571 Moneta Avenue
Timmins, Ontario
P4N 7H9

Dear Sir:

RE: Mining Claims P 825784, et al,
in Tisdale Township

I have not received the reports and maps (in duplicate) for Geophysical (Magnetometer & Electromagnetic) Surveys on the above-mentioned claims.

As the assessment "Report of Work" was recorded by the Mining Recorder on September 17, 1985 the 60 day period allowed by Section 77 of the Mining Act for the submission of the technical reports and maps to this office will expire on November 16, 1985.

If the material is not submitted to this office by November 16, 1985 I will have no alternative but to instruct the Mining Recorder to delete the work credits from the claim record sheets.

For further information, please contact Mr. Arthur Barr at (416)965-4888.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-4888

AB/mc

cc: Doug Londry
P.O. Box 1140
571 Moneta Avenue
Timmins, Ontario
Encl. P4N 7H9

Mining Recorder
Timmins, Ontario

Kidd Creek Mines Ltd.
Box 1140
571 Moneta Avenue,
Timmins, Ontario P4N 7H9
(705) 267-1188

Exploration Division

November 14, 1985

Mr. Fred Matthews
Director, Land Management Branch
Whitney Block, Room 6450
Queen's Park
TORONTO, Ontario
M7A 1W3

Dear Sir:

Re: TISDALE TOWNSHIP

Enclosed please find duplicate copies of a report and maps covering claims in Tisdale Township. The claims aforementioned are P-825784 et al.

Your prompt attention to this matter would be greatly appreciated.

Yours truly,

DOUG LONDRY

DL/pp
Encls.

Ontario

Ministry of Natural Resources

File _____

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Geophysics

Township or Area Tisdale

Claim Holder(s) Kidd Creek Mines Ltd.
P.O. Box 1140, Timmins Ontario

Survey Company Kidd Creek Mines Ltd.

Author of Report D. Londry

Address of Author P.O. Box 1140, Timmins Ontario

Covering Dates of Survey July 15, 1985 - November 10, 1985
(linecutting to office)

Total Miles of Line Cut 20 Km

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
--Electromagnetic	40
--Magnetometer	20
--Radiometric	
--Other (VLF)	20
Geological	
Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Nov. 14/85 SIGNATURE: Douglas Londry
Author of Report or Agent

Res. Geol. _____ Qualifications 22289

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
P	851801 ✓

If space insufficient, attach list

TOTAL CLAIMS 1

OFFICE USE ONLY

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

HL : 65

Number of Stations 103 Number of Readings MAG/VLF : 103

Station interval 20m Line spacing 100m

Profile scale VLF: 1 cm = 10° HL: 1 cm = 10%

Contour interval 50 gammas

MAGNETIC

Instrument Scintrex IGS-2/MP4

Accuracy – Scale constant +/- .1 gamma

Diurnal correction method Scintrex MP-3 Base Station Magnetometer

Base Station check-in interval (hours) 30 seconds

Base Station location and value 60 North, Line 0 West

58971 gammas

ELECTROMAGNETIC

Instrument Apex Parametrics Max Min I

Coil configuration Horizontal Loop

Coil separation 160m

Accuracy +/- 1%

Method: ☐ Fixed transmitter ☐ Shoot back ☒ In line ☐ Parallel line

Frequency 444 and 1777 Hz
(specify V.L.F. station)

Parameters measured In-phase and guadrature components of secondary field measured as a percentage of the primary field.

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION RESISTIVITY

Instrument

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time Frequency

– Off time Range

– Delay time

– Integration time

Power

Electrode array

Electrode spacing

Type of electrode

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey VLF - EM

Instrument Scintrex IGS-2/VLF-4

Accuracy ± 1%

Parameters measured horizontal field strength and in-phase and quadrature components of vertical field.

Additional information (for understanding results) METHOD: Fixed transmitter

TRANSMITTED STATION: Cutler, Maine

FREQUENCY: 24.0 KHz.

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

Drainage Development _____

Estimated Range of Overburden Thickness _____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

General _____

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

Ontario

Ministry of Natural Resources

File _____

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Geophysics

Township or Area Tisdale

Claim Holder(s) Kidd Creek Mines Ltd.
P.O. Box 1140, Timmins, Ontario

Survey Company Kidd Creek Mines Ltd.

Author of Report D. Londry

Address of Author P.O. Box 1140, Timmins, Ontario

Covering Dates of Survey 9.2 Km
(linecutting to office)

Total Miles of Line Cut _____

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
–Electromagnetic	40
–Magnetometer	20
–Radiometric	
–Other (VLF)	20
Geological	
Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Nov. 14/85 SIGNATURE: Douglas Londry
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
P	849485
P	849486
P	851802
P	851803
P	851880
P	851881

If space insufficient, attach list

TOTAL CLAIMS 6

OFFICE USE ONLY

837 (6/79)

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS -- If more than one survey, specify data for each type of survey

HL: 332

Number of Stations 488 Number of Readings MAG/VLF: 488

Station interval 20m Line spacing 100m

Profile scale VLF: 1 cm = 10° HL: 1 cm = 10%

Contour interval 100 gammas

MAGNETIC

Instrument Scintrex IGS-2/MP-4

Accuracy – Scale constant ± .1 gamma

Diurnal correction method Scintrex MP-3 Base Station Magnetometer

Base Station check-in interval (hours) 0 North, Line 200 West

Base Station location and value 58871 Gammas

ELECTROMAGNETIC

Instrument Apex Parametrics Max Min I

Coil configuration Horizontal Loop

Coil separation 120m

Accuracy ± 1%

Method: ☐ Fixed transmitter ☐ Shoot back ☒ In line ☐ Parallel line

Frequency 444 and 1777 Hz
(specify V.L.F. station)

Parameters measured In-Phase and quadrature components of secondary field measured as a percentage of primary field.

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION RESISTIVITY

Instrument

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time Frequency

– Off time Range

– Delay time

– Integration time

Power

Electrode array

Electrode spacing

Type of electrode

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey VLF - EM

Instrument Scintrex IGS-2/VLF-4

Accuracy + - 1%

Parameters measured Horizontal field strength and in-phase quadrature components of vertical field

Additional information (for understanding results) METHOD: Fixed transmitter

TRANSMITTER STATION: Cutler, Maine

FREQUENCY: 24.0 KHz.

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

_____

_____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

_____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

_____

Drainage Development _____

Estimated Range of Overburden Thickness _____

_____

_____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

_____

_____

_____

General _____

_____

_____

_____

_____

_____

_____

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_____

_____

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

_____

_____

_____

_____

_____

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_____

Ontario

Ministry of Natural Resources

File _____

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Geophysics

Township or Area Tisdale Township

Claim Holder(s) Kidd Creek Mines Ltd.
P.O. Box 1140, Timmins Ontario

Survey Company Kidd Creek Mines Ltd.

Author of Report D. Londry

Address of Author P.O. Box 1140, Timmins, Ontario

Covering Dates of Survey July 15, 1985 - November 10, 1985
(linecutting to office)

Total Miles of Line Cut 18 Km

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
--Electromagnetic	40
--Magnetometer	20
--Radiometric	
--Other (VLF)	20
Geological	
Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Nov. 14/85 SIGNATURE: D. Londry
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
P	825784 ✓
P	831692 ✓
P	831693 ✓
P	831694 ✓
P	831839 ✓
P	831840 ✓
P	831841 ✓
P	831842 ✓
P	831843 ✓
P	831844 ✓

If space insufficient, attach list

TOTAL CLAIMS 10

OFFICE USE ONLY

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

HL : 614

Number of Stations 881 Number of Readings MAG/VLF : 881

Station interval 20m Line spacing 100m

Profile scale VLF: 1 cm = 20° HL: 1 cm = 20%

Contour interval 200 gammas

MAGNETIC

Instrument Scintrex IGS-2/MP-4

Accuracy – Scale constant ± .1 gamma

Diurnal correction method Scintrex MP-3 Base Station Magnetometer

Base Station check-in interval (hours) 30 seconds

Base Station location and value 300 North, Line 500 West

58660 gammas

ELECTROMAGNETIC

Instrument Apex Parametrics Max Min I

Coil configuration Horizontal Loop

Coil separation 160 Metres

Accuracy ± 1%

Method: ☐ Fixed transmitter ☐ Shoot back ☒ In line ☐ Parallel line

Frequency 444 and 1777 Hz
(specify V.L.F. station)

Parameters measured In-Phase and quadrature components of secondary field measured as a percentage of primary field.

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION RESISTIVITY

Instrument

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time Frequency

– Off time Range

– Delay time

– Integration time

Power

Electrode array

Electrode spacing

Type of electrode

SELF POTENTIAL

Instrument _____ Range _____

Survey Method _____

_____

Corrections made _____

_____

RADIOMETRIC

Instrument _____

Values measured _____

Energy windows (levels) _____

Height of instrument _____ Background Count _____

Size of detector _____

Overburden _____

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey VLF - EM

Instrument Scintrex IGS-2/VLF-4

Accuracy ± 1%

Parameters measured Horizontal field strength and in-phase quadrature components of vertical field.

Additional information (for understanding results) METHOD: Fixed transmitter

TRANSMITTER STATION: Cutler, Maine

FREQUENCY: 24.0 KHz.

AIRBORNE SURVEYS

Type of survey(s) _____

Instrument(s) _____

(specify for each type of survey)

Accuracy _____

(specify for each type of survey)

Aircraft used _____

Sensor altitude _____

Navigation and flight path recovery method _____

_____

Aircraft altitude _____ Line Spacing _____

Miles flown over total area _____ Over claims only _____

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken _____

_____

_____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

_____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

_____

Drainage Development _____

Estimated Range of Overburden Thickness _____

_____

_____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis _____

_____

_____

_____

General _____

_____

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_____

ANALYTICAL METHODS

Values expressed in: per cent ☐
p. p. m. ☐
p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others _____

Field Analysis (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Field Laboratory Analysis

No. (_____ tests)

Extraction Method _____

Analytical Method _____

Reagents Used _____

Commercial Laboratory (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

_____

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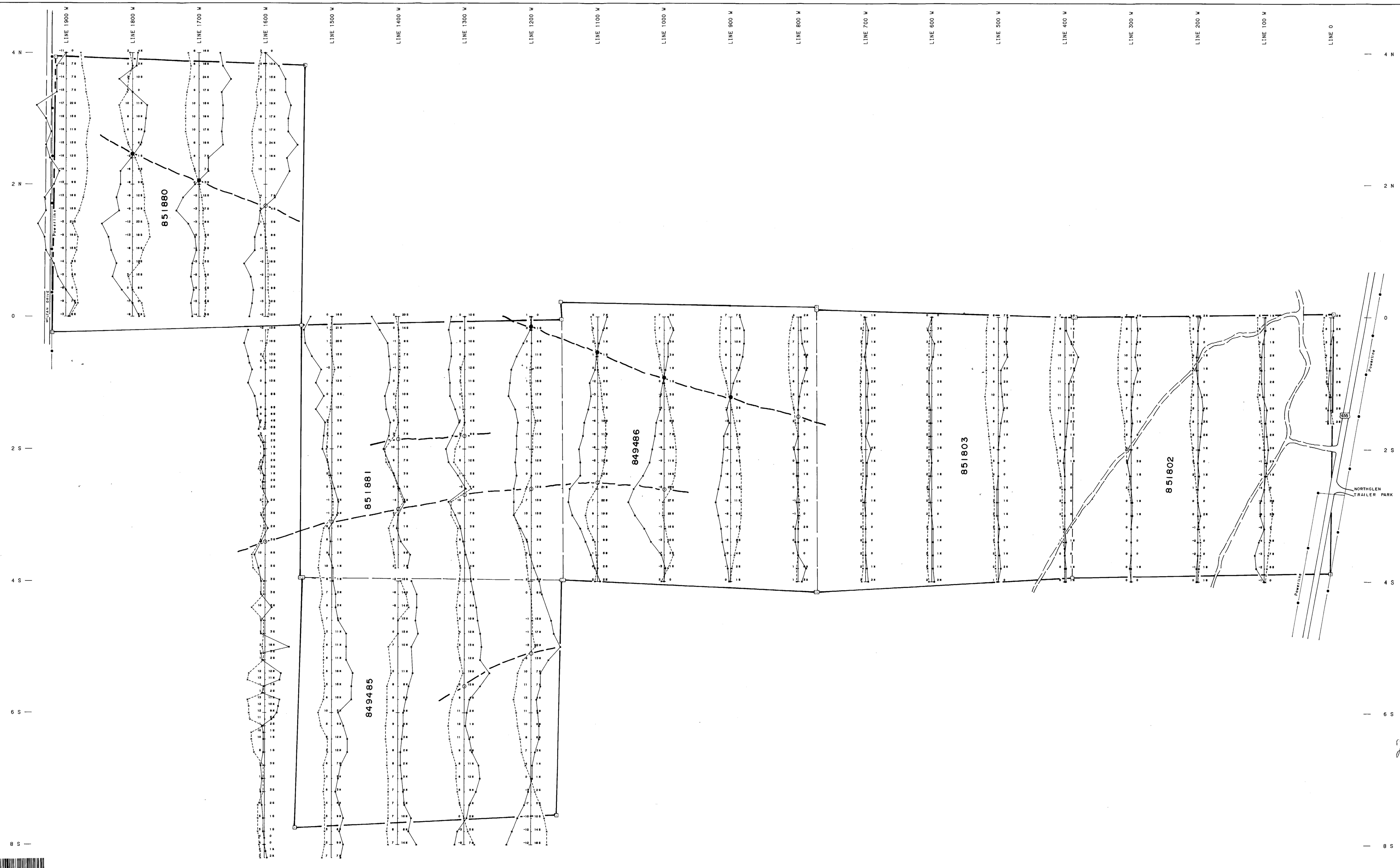
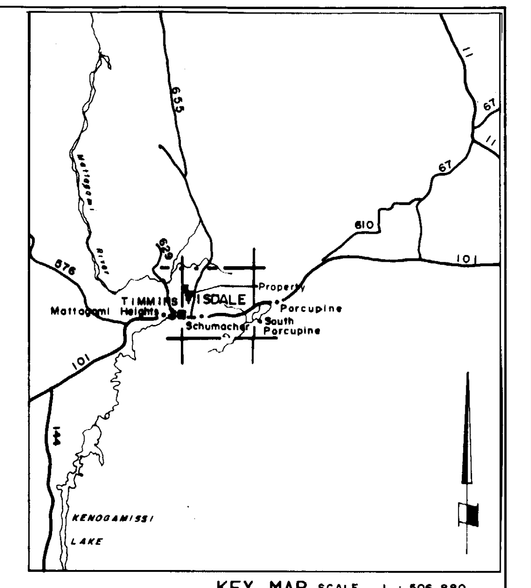




KEY MAP SCALE 1 : 506,880

LEGEND

INSTRUMENT : SCINTREX IGS-2/VLF-4
STATION : CUTLER, 24.0 KHz
PROFILE SCALE : DIP ANGLE 1 CM= 10

FIELD STRENGTH (VERT. QUADRATURE) | DIP ANGLE (DEGREES)

20 % | 12 %

S DIPS ⟵ ⟶ N DIPS

0 40 80 120 160 200
METRES (1:2000)

KIDD CREEK MINES LTD.

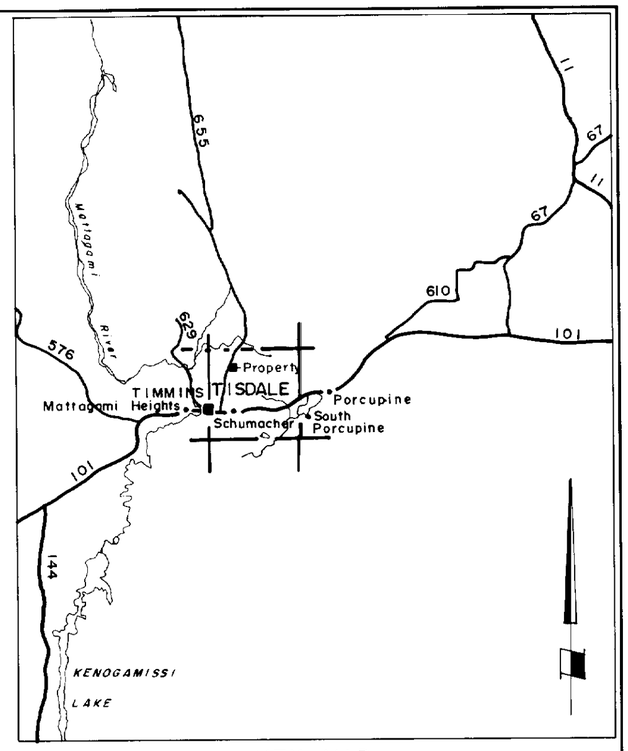
V L F SURVEY
TISDALE GOLD
TISDALE 41

NTS: 42-A-06 PROJ. #981

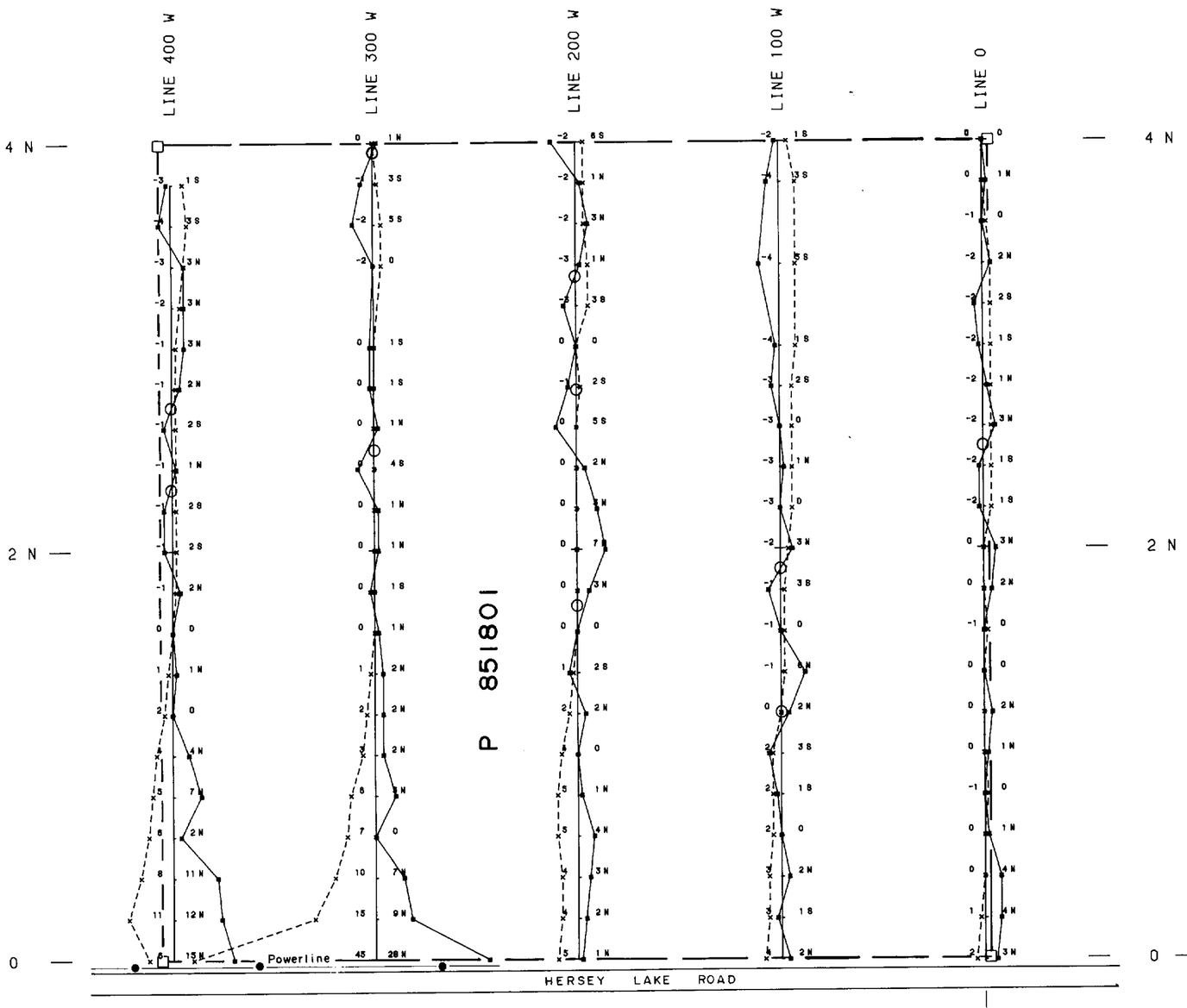
WORK BY	DATE	FILE NAME
	1985	85TISD41.VLF

200

Lot 9 | Lot 8



KEY MAP SCALE 1 : 506,880



ASTRO

○ VLF CONDUCTOR

LEGEND

INSTRUMENT : SCINTREX IGS-2/VLF-4
STATION : CUTLER, 24.0 KHz
PROFILE SCALE : DIP ANGLE 1 CM= 10

FIELD STRENGTH (VERT. QUADRATURE) | DIP ANGLE (DEGREES)

20 | 12 N

← S DIPS | N DIPS →

0 40 80 120 160 200
METRES (1:2000)

N 1/2 Con V
S 1/2 Con IV

KIDD CREEK MINES LTD.

V L F SURVEY
TISDALE GOLD
TISDALE 52

NTS: 42-A-06 PROJ. #981

WORK BY	DATE	FILE NAME
Doug Lee / Doug	1985	85TISD52.VLF

Lot 8 | Lot 7 | Lot 6 | Lot 5

LINE 800 W | LINE 700 W | LINE 600 W | LINE 500 W | LINE 400 W | LINE 300 W | LINE 200 W | LINE 100 W | LINE 0 | LINE 100 E | LINE 200 E | LINE 300 E | LINE 400 E | LINE 500 E | LINE 600 E | LINE 700 E | LINE 800 E | LINE 900 E | LINE 1000 E | LINE 1100 E | LINE 1200 E

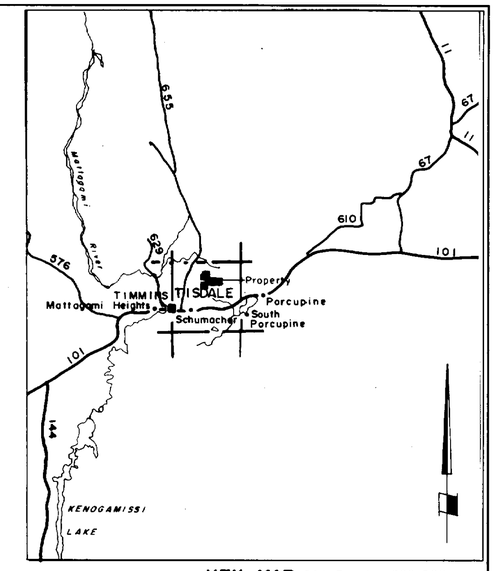
8 N
6 N
4 N
2 N
Con V / Con IV 0
2 S
4 S
6 S
8 S
10 S
12 S

to 655

LAKE

Powerline

831692 | 831693 | 831694 | 831839 | 831840 | 825874 | 831841 | 831842 | 831843 | 831844



KEY MAP SCALE 1 : 506,880

ASTRO

CONDUCTOR AXIS

LEGEND

INSTRUMENT : SCINTREX IGS-2/VLF-4
STATION : CUTLER, 24.0 KHz
PROFILE SCALE : DIP ANGLE 1 CM= 20

FIELD STRENGTH (VERT. QUADRATURE) | DIP ANGLE (DEGREES)

20 | 12 N

S DIPS ⟵ ⟶ N DIPS

0 100 200 300 400 500
METRES (1:5000)

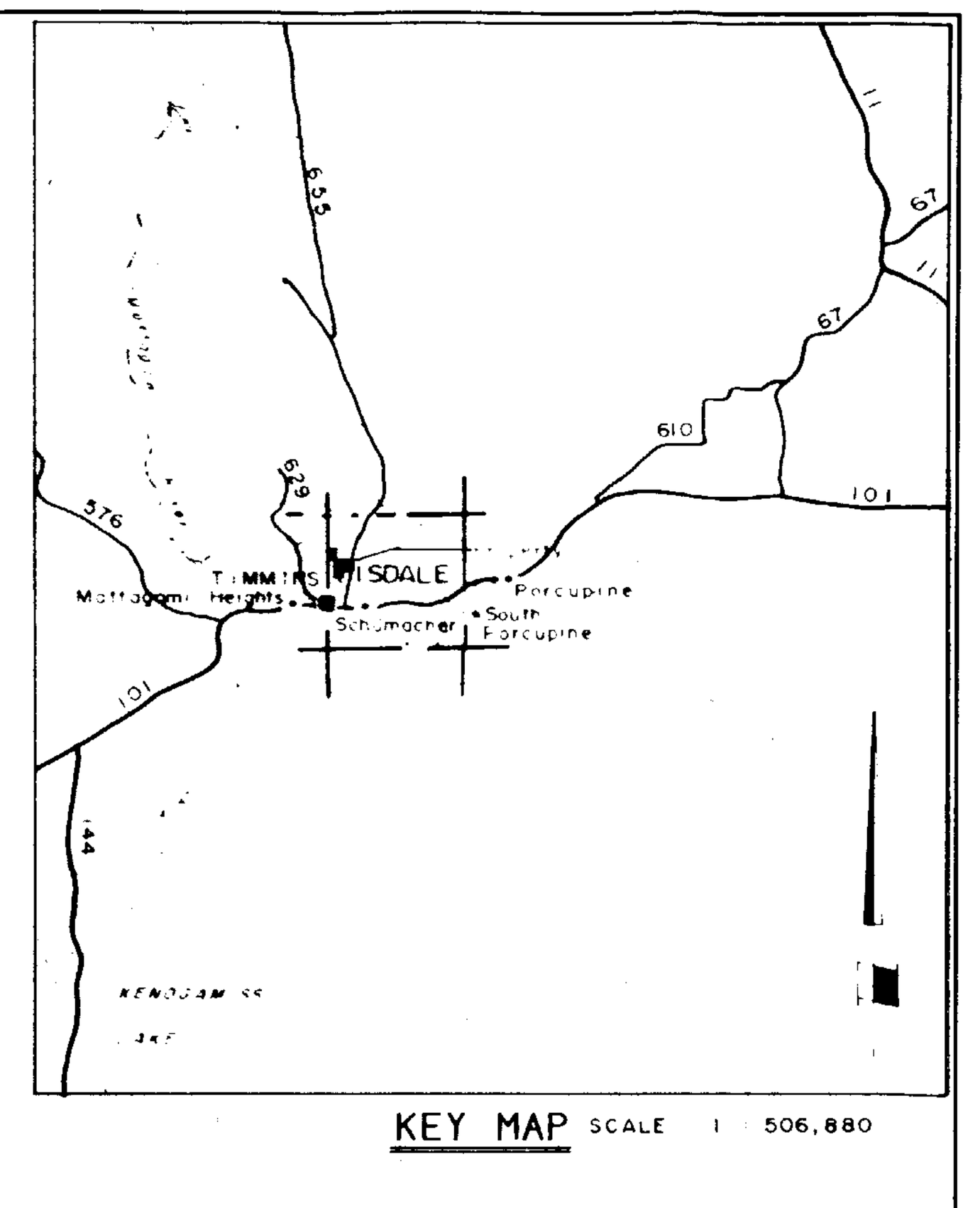
KIDD CREEK MINES LTD.

V L F SURVEY
TISDALE GOLD
TISDALE 53-63

NTS: 42-A-06 PROJ. #981

WORK BY	DATE	FILE NAME
	1985	85TISD53.VLF

42A11SW0235 2.8638 TISDALE



KEY MAP SCALE 1 : 506,880

LEGEND

INSTRUMENT : APEX PARAMETRICS MAXMIN I
FREQUENCY : 444 Hz
COIL SPACING : 120 METRES
PROFILE SCALE : 1 CM= 10%

444 Hz
IN-PHASE READINGS
QUADRATURE READINGS

+ READINGS — READINGS

0 40 80 120 160 200
METRES (1:2000)

KIDD CREEK MINES LTD.

HORIZONTAL LOOP SURVEY
TISDALE GOLD
TISDALE 41

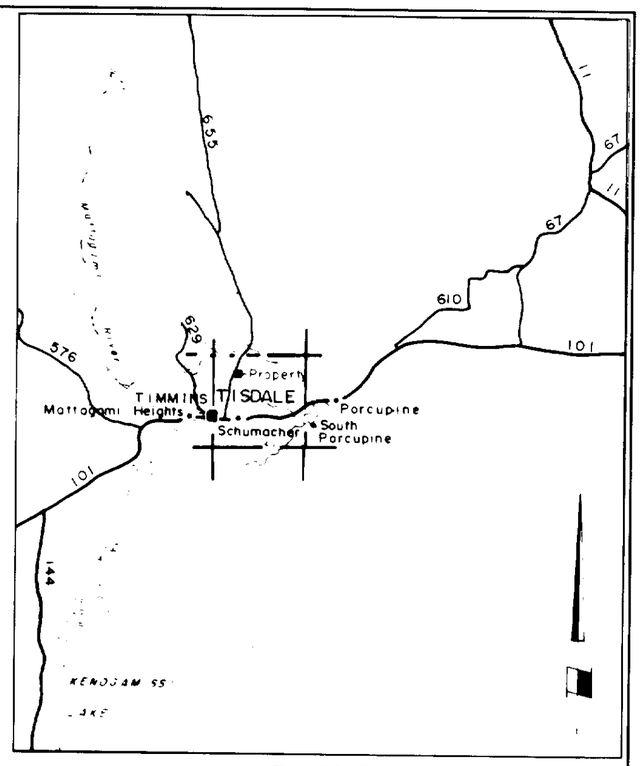
NTS: 42-A-06 PROJ. #981

WORK BY	DATE	FILE NAME
[signature]	1985	85TISD41.HL

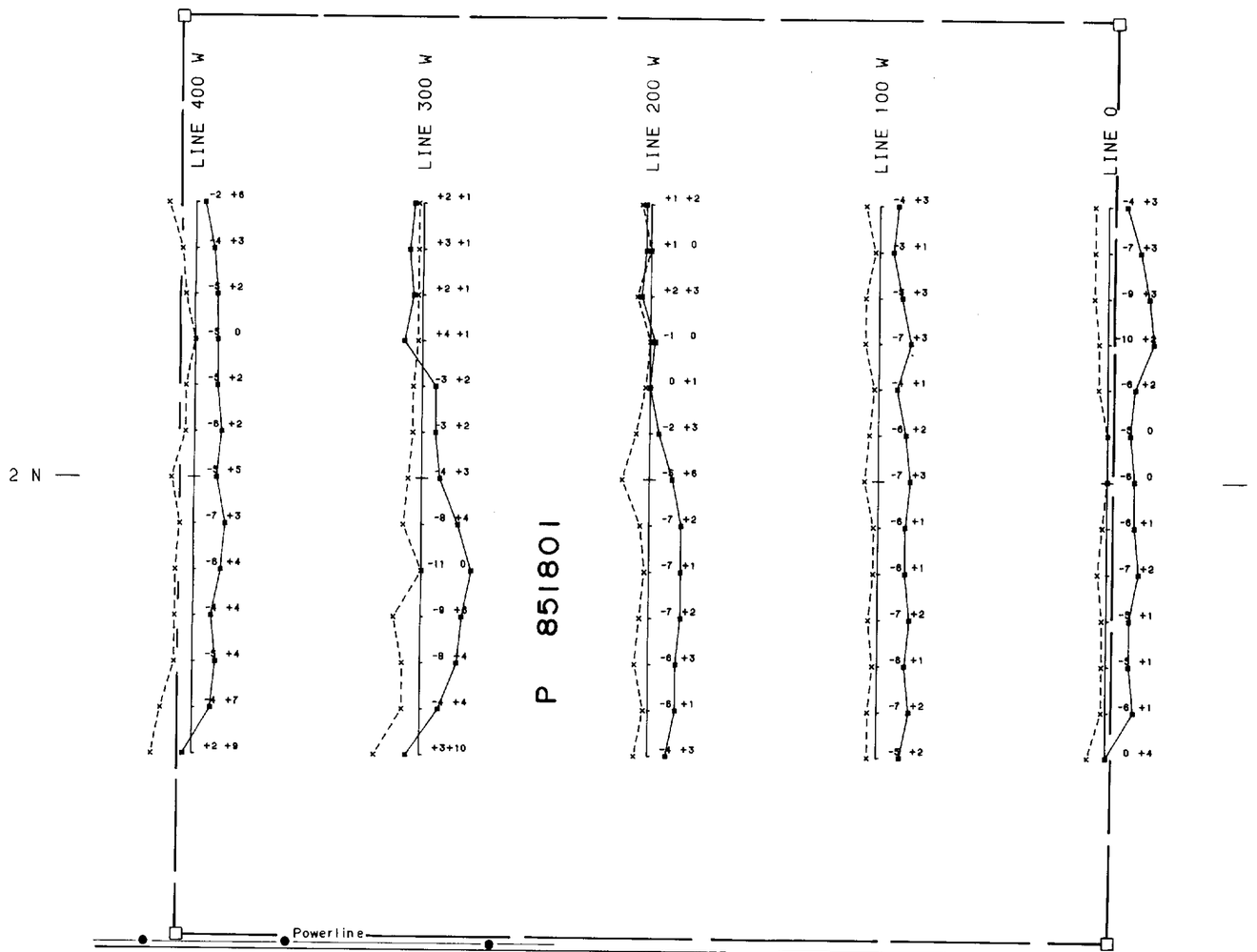
230

Lot 9

Lot 8



KEY MAP SCALE 1 : 506,880

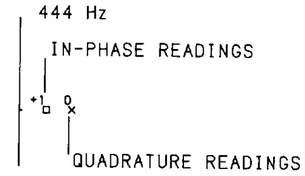


N 1/2 Con V

S 1/2 Con IV

LEGEND

INSTRUMENT : APEX PARAMETRICS MAXMIN I
FREQUENCY : 444 Hz
COIL SPACING : 160 METRES
PROFILE SCALE : 1 CM= 10%



← + READINGS — READINGS →

0 40 80 120 160 200

METRES (1:2000)

KIDD CREEK MINES LTD.

HORIZONTAL LOOP SURVEY
TISDALE GOLD
TISDALE 52

NTS: 42-A/06 PROJ#981

WORK BY	DATE	FILE NAME
D. Lowdy	1985	85TISD52.HL

42A11SW0235 2.8630 TISDALE

Lot 8 | Lot 7 | Lot 6 | Lot 5

LINE 800 W | LINE 700 W | LINE 600 W | LINE 500 W | LINE 400 W | LINE 300 W | LINE 200 W | LINE 100 W | LINE 0 | LINE 100 E | LINE 200 E | LINE 300 E | LINE 400 E | LINE 500 E | LINE 600 E | LINE 700 E | LINE 800 E | LINE 900 E | LINE 1000 E | LINE 1100 E | LINE 1200 E

8 N
6 N
4 N
2 N
Con V / Con IV 0
2 S
4 S
6 S
8 S
10 S

to 655

LAKE

831692

831694

831693

Powerline

LAKE

Powerline

831839

831840

825784

831842

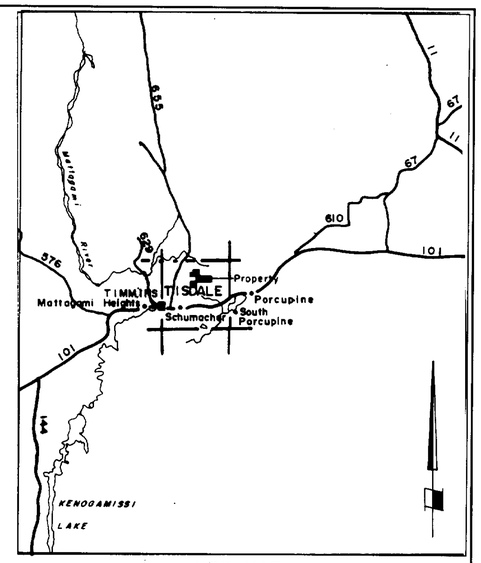
841

LAKE

831

831843

831844



KEY MAP SCALE 1 : 506,880

N
ASTRO

CONDUCTOR

LEGEND

INSTRUMENT : APEX PARAMETRICS MAXMIN I
FREQUENCY : 444 Hz
COIL SPACING : 160 METRES
PROFILE SCALE : 1 CM= 20%

28630

444 Hz
IN-PHASE READINGS
QUADRATURE READINGS

← + READINGS — READINGS →

0 100 200 300 400 500
METRES (1:5000)

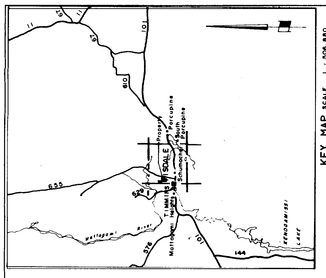
KIDD CREEK MINES LTD.

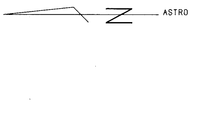
HORIZONTAL LOOP SURVEY
TISDALE GOLD
TISDALE 53-63

NTS: 42-A/06 PROJ#981

WORK BY	DATE	FILE NAME
	1985	85TISD53.HL

42A11SW0235 2.8630 TISDALE





KIDD CREEK MINES LTD.

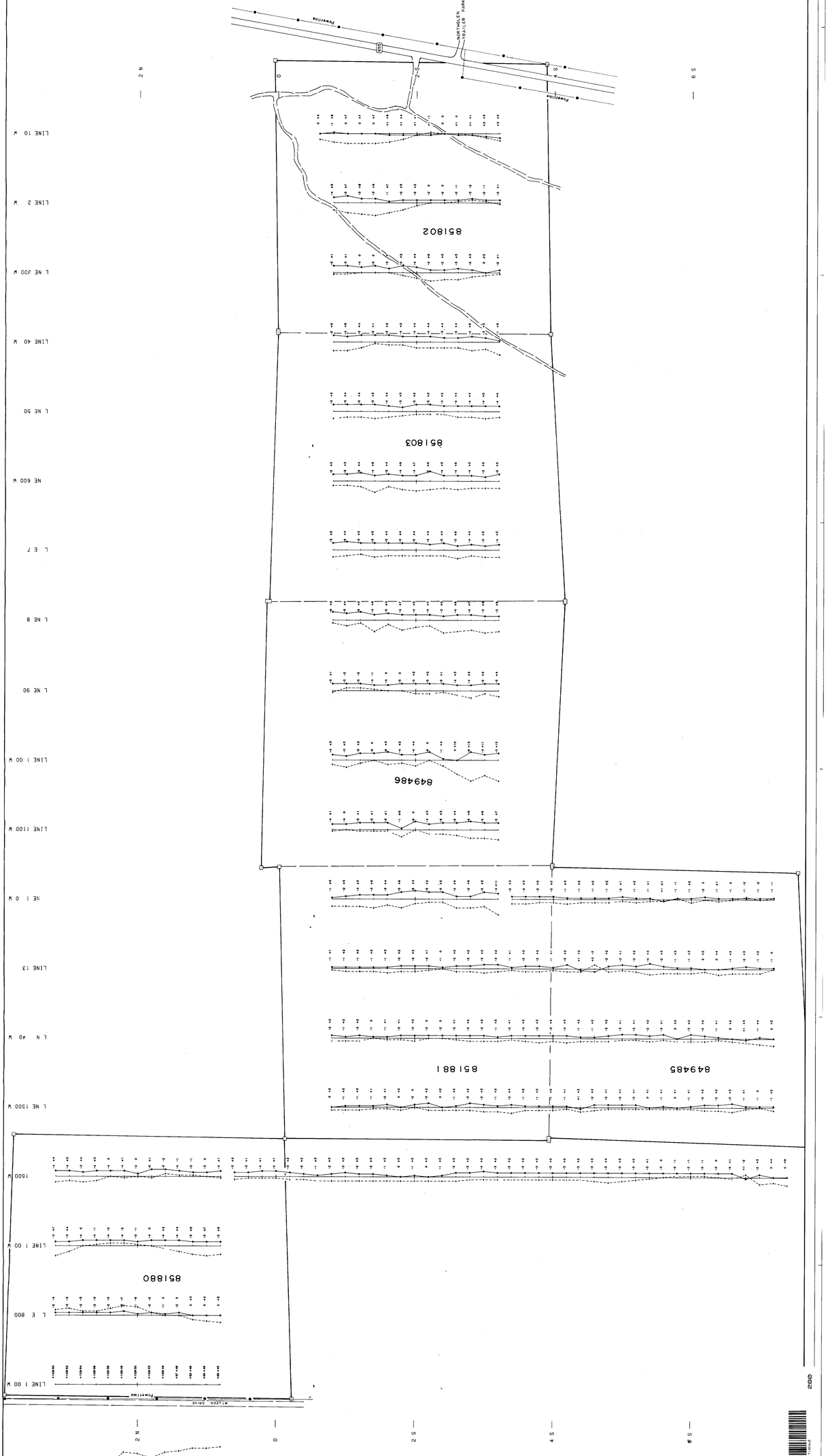
HORIZONTAL LOOP SURVEY

TISDALE GOLD

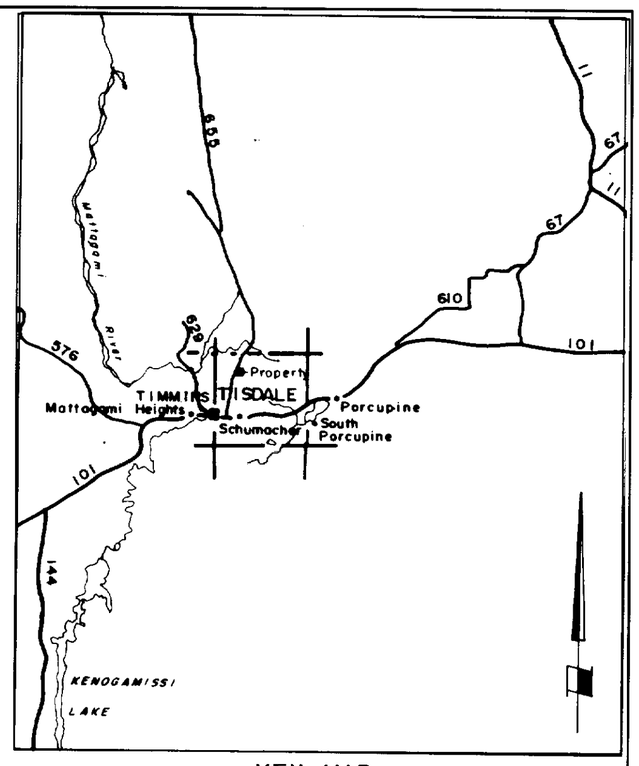
TISDALE 41

NTS 42-A-06 PROJ. #981

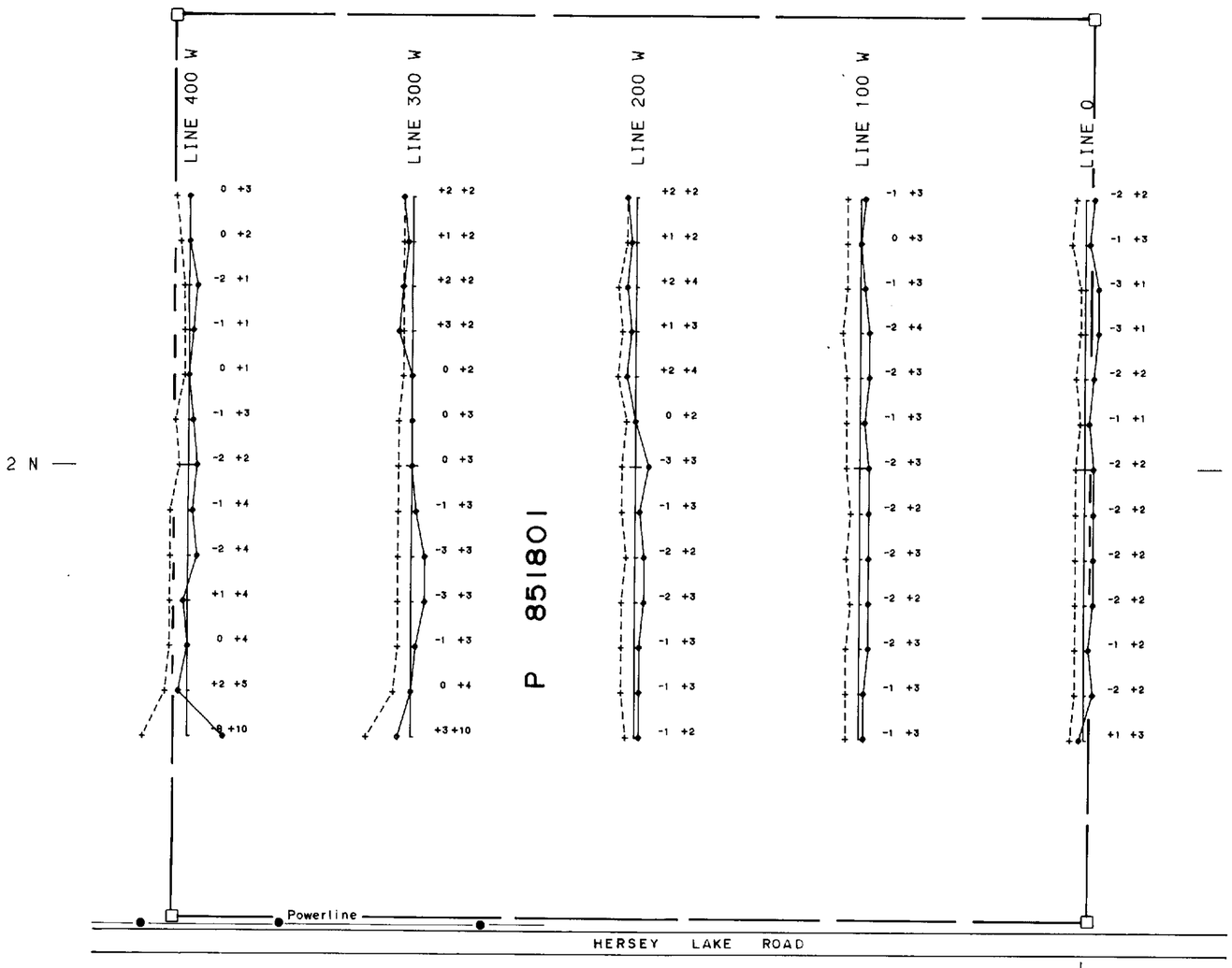
SURVEY	DATE	FILE NAME
	1985	851SG41.HL



Lot 9 | Lot 8



KEY MAP SCALE 1 : 506,880



N 1/2 Con V
S 1/2 Con IV

ASTRO

LEGEND

INSTRUMENT : APEX PARAMETRICS MAXMIN I
FREQUENCY : 1777 Hz
COIL SPACING : 160 METRES
PROFILE SCALE : 1 CM= 10%

1777 Hz
IN-PHASE READINGS
QUADRATURE READINGS

← + READINGS — READINGS →

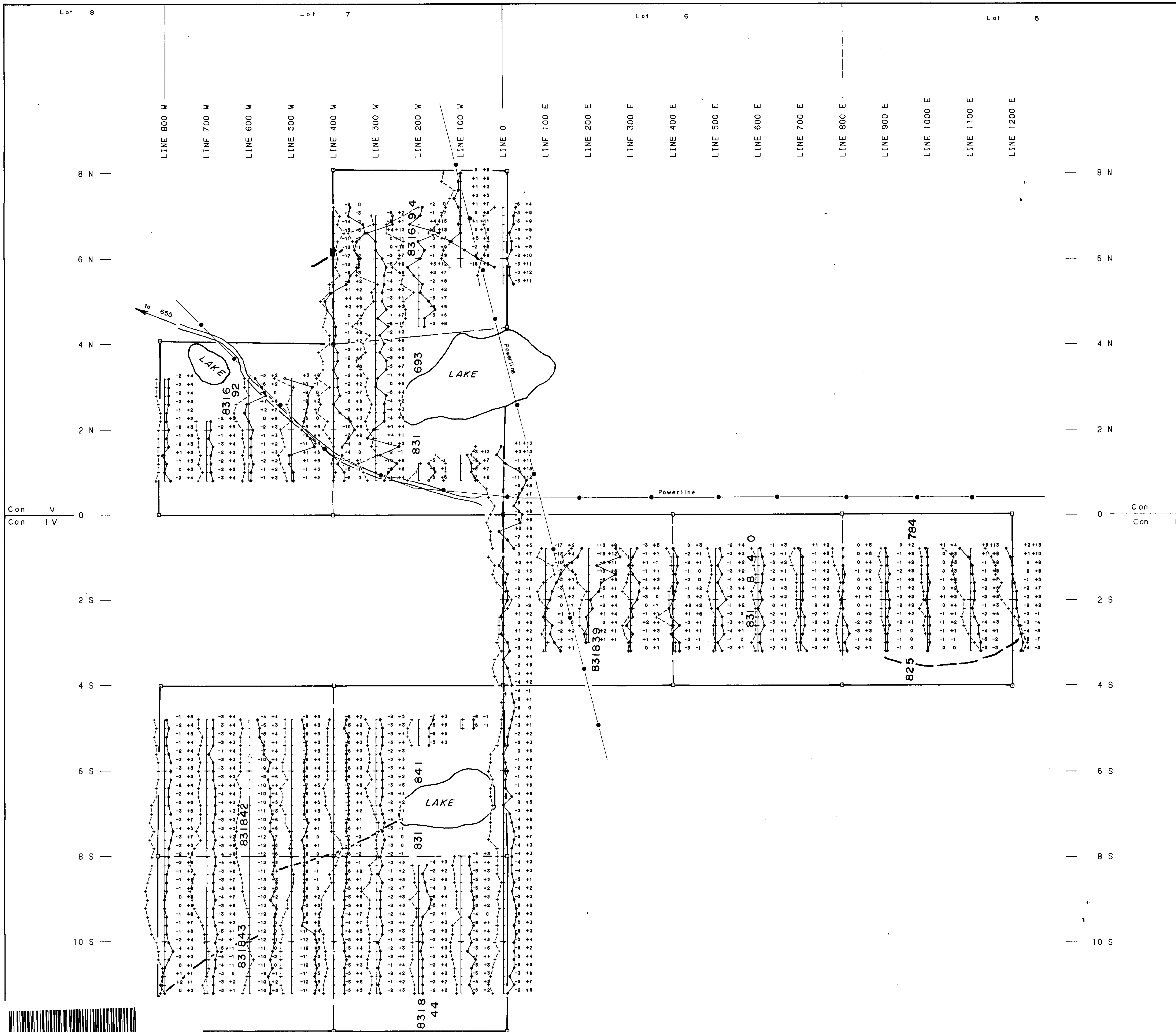
0 40 80 120 160 200
METRES (1:2000)

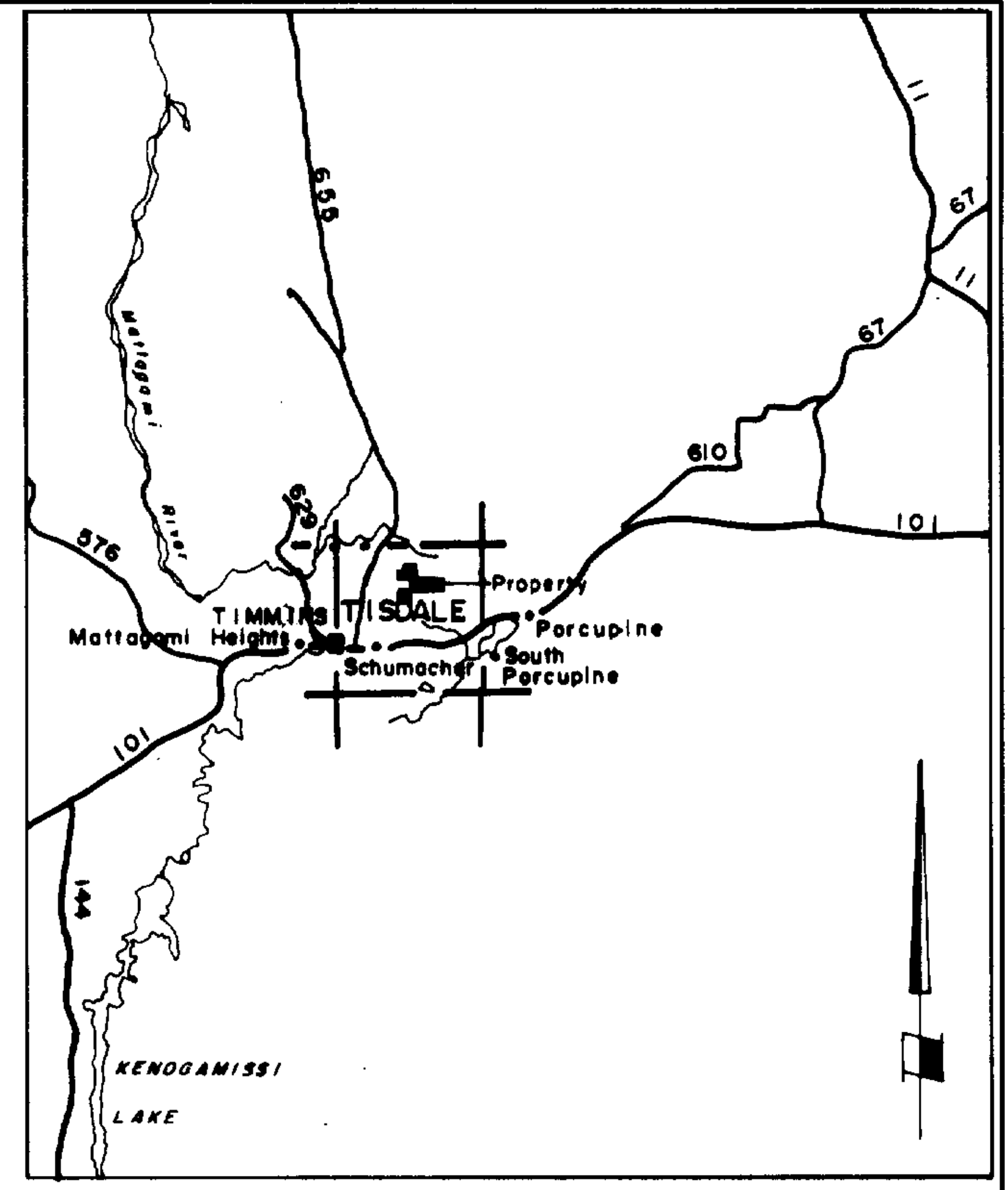
KIDD CREEK MINES LTD.

HORIZONTAL LOOP SURVEY
TISDALE GOLD
TISDALE 52

NTS: 42-A/06 PROJ#981

WORK BY	DATE	FILE NAME
Douglas Lindy	1985	85TISD52.HL





KEY MAP SCALE 1 : 506,880

N

ASTRO

CONDUCTOR

LEGEND

INSTRUMENT : APEX PARAMETRICS MAXMIN I
FREQUENCY : 1777 Hz
COIL SPACING : 160 METRES
PROFILE SCALE : 1 CM= 10%

1777 Hz
IN-PHASE READINGS
QUADRATURE READINGS

+ READINGS — READINGS

0 100 200 300 400 500
METRES (1:5000)

28630

KIDD CREEK MINES LTD.

HORIZONTAL LOOP SURVEY
TISDALE GOLD

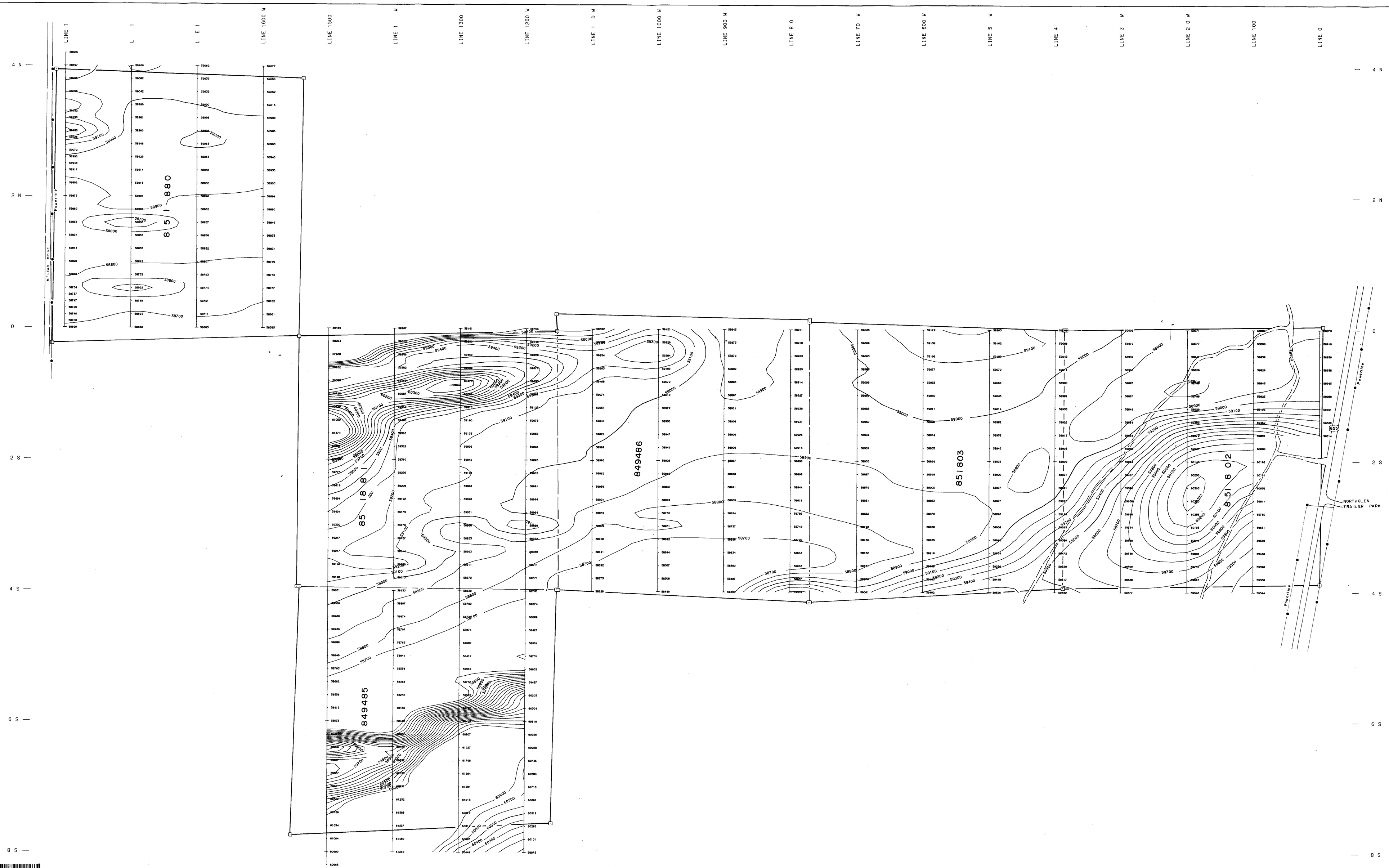
TISDALE 53-63

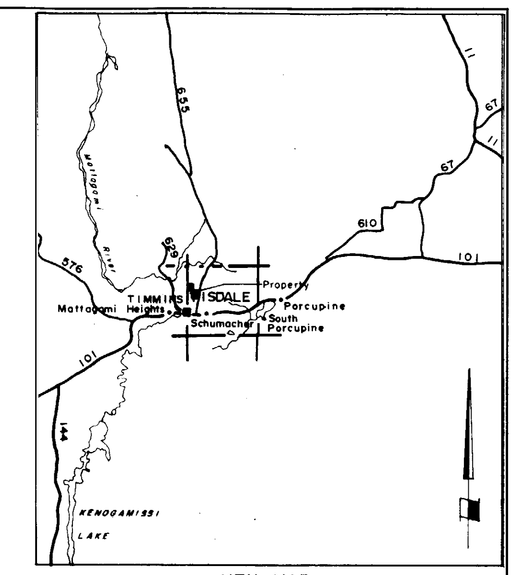
NTS:42-A/06 PROJ#981

WORK BY	DATE	FILE NAME
[illegible]	1985	85TISD53.HL

42A11SW0235 2.8630 TISDALE

280





KEY MAP SCALE 1 : 506,880

LEGEND

INSTRUMENT : SCINTREX IGS-2/MP-4
TYPE : PROTON PRECESSION, TOTAL FIELD
READINGS IN GAMMAS
▲ MAGNETIC BASE STATION

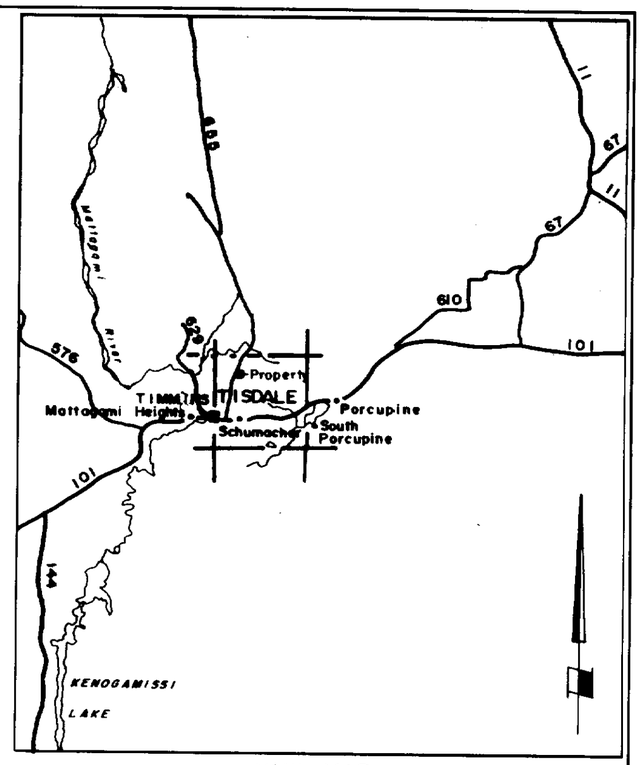
0 40 80 120 160 200
METRES (1:2000)

KIDD CREEK MINES LTD.

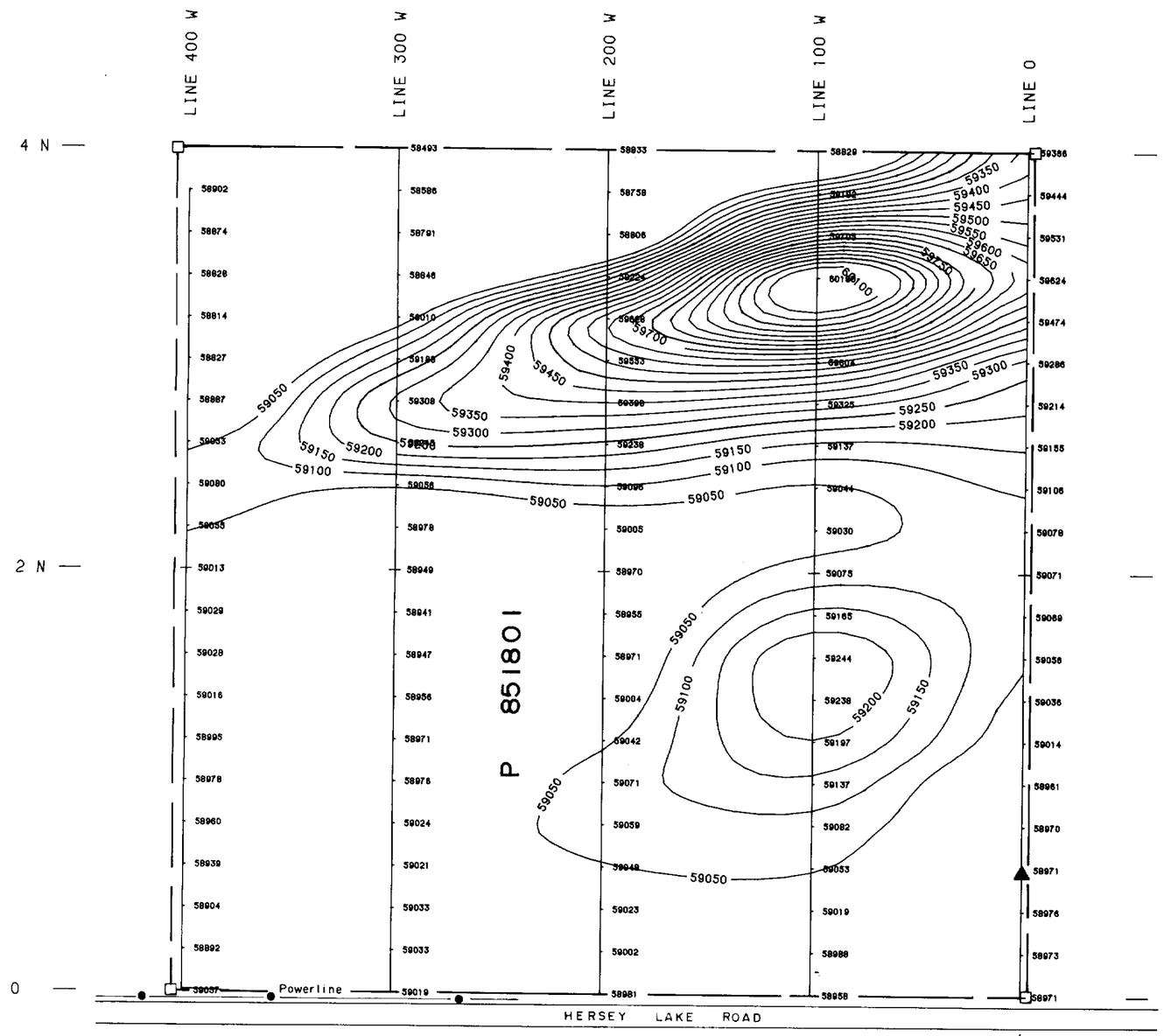
MAGNETIC SURVEY
TISDALE GOLD
TISDALE 41

NTS: 42-A-06 PROJ. #981

WORK BY	DATE	FILE NAME
	1985	85TISD41.MAG



KEY MAP SCALE 1 : 506,880



N

ASTRO

28630

N 1/2 Con V
S 1/2 Con IV

LEGEND

INSTRUMENT : SCINTREX IGS-2/MP-4
TYPE : PROTON PRECESSION, TOTAL FIELD
READINGS IN GAMMAS
▲ MAGNETIC BASE STATION

0 40 80 120 160 200
METRES (1:2000)

KIDD CREEK MINES LTD.

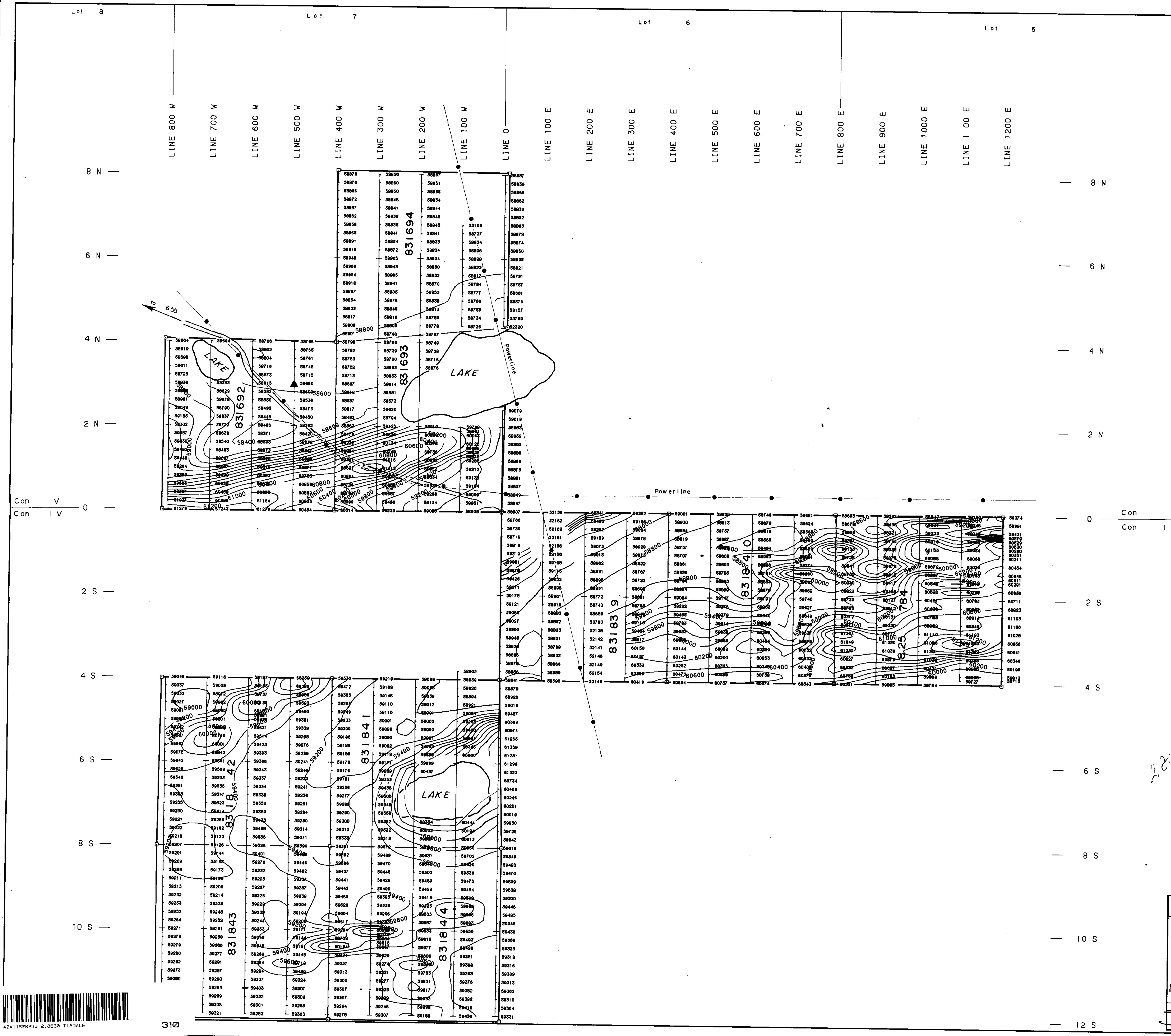
MAGNETIC SURVEY
TISDALE GOLD
TISDALE 52

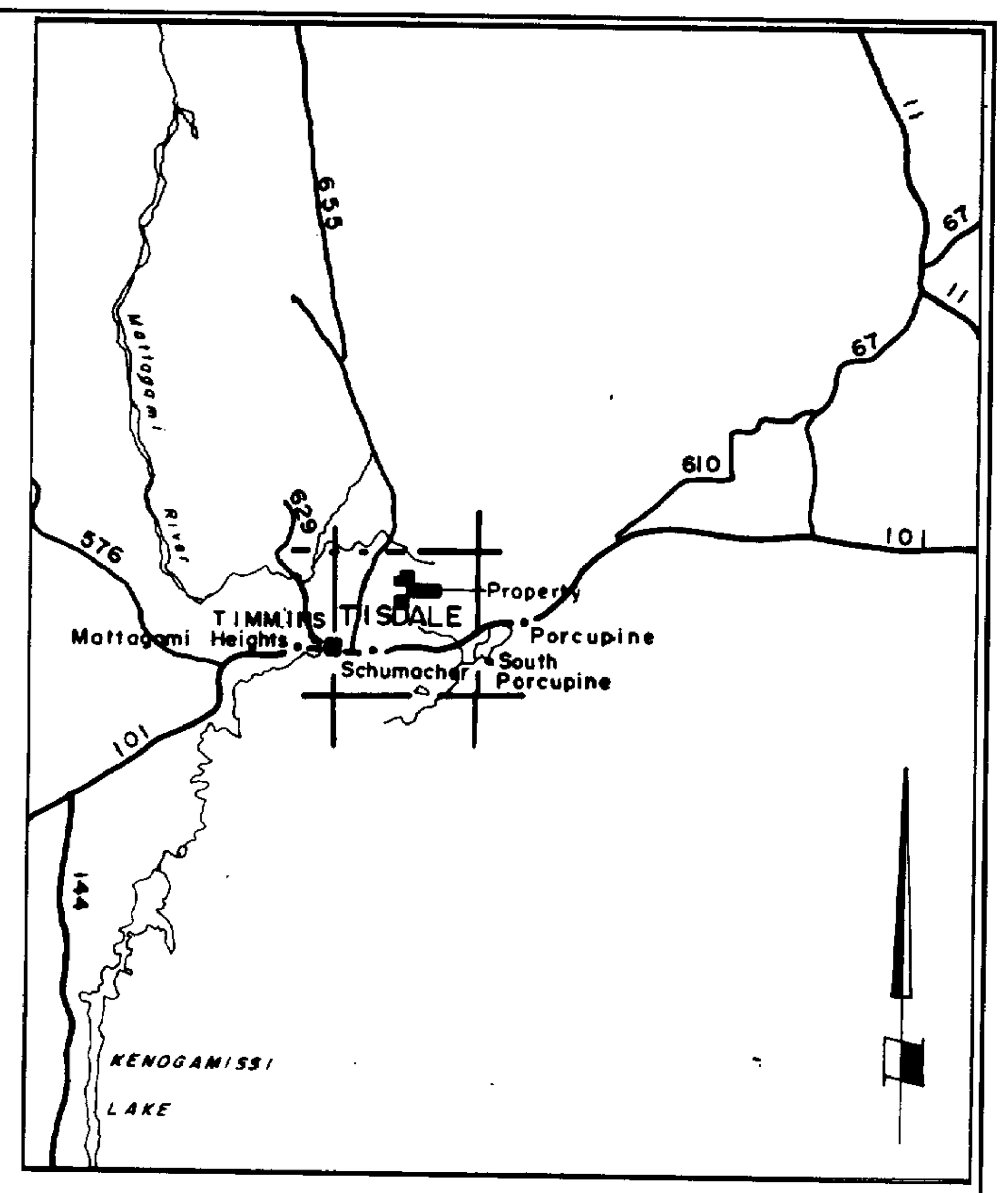
NTS: 42-A-06 PROJ. #981

WORK BY	DATE	FILE NAME
Douglas Long	1985	85TISD52.MAG

42A11SW0235 2.8630 TISDALE

300





KEY MAP SCALE 1 : 506,880

2.8630

LEGEND

INSTRUMENT : SCINTREX IGS-2/MP-4
TYPE : PROTON PRECESSION, TOTAL FIELD
READINGS IN GAMMAS
▲ MAGNETIC BASE STATION

0 100 200 300 400 500
METRES (1:5000)

KIDD CREEK MINES LTD.

MAGNETIC SURVEY
TISDALE GOLD

TISDALE 53-63

NTS: 42-A-06 PROJ. #981

WORK BY	DATE	FILE NAME
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310