6073

REPORT ON

GEOLOGICAL and GEOPHYSICAL SURVEYS

&

SUPPORTING WORK

by

D.A. Donnelly - B.Sc.
G.R. Peatfield - P.Eng.

&

W.A. Gasteiger - Geophysicist

GOAT

on the

GROAT CREEK CLAIMS (CANYON, GULLY & PLATEAU GROUPS)

situated west of the north end of

Kinaskan Lake

in the Liard Mining Division

57° 40' N; 130° 14'W
N.T.S. 104G/9 E & W

owned by

Texasgulf Canada Ltd.

November 1976 Vancouver, B.C.

104G/9E

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6073

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INTRODUCTION

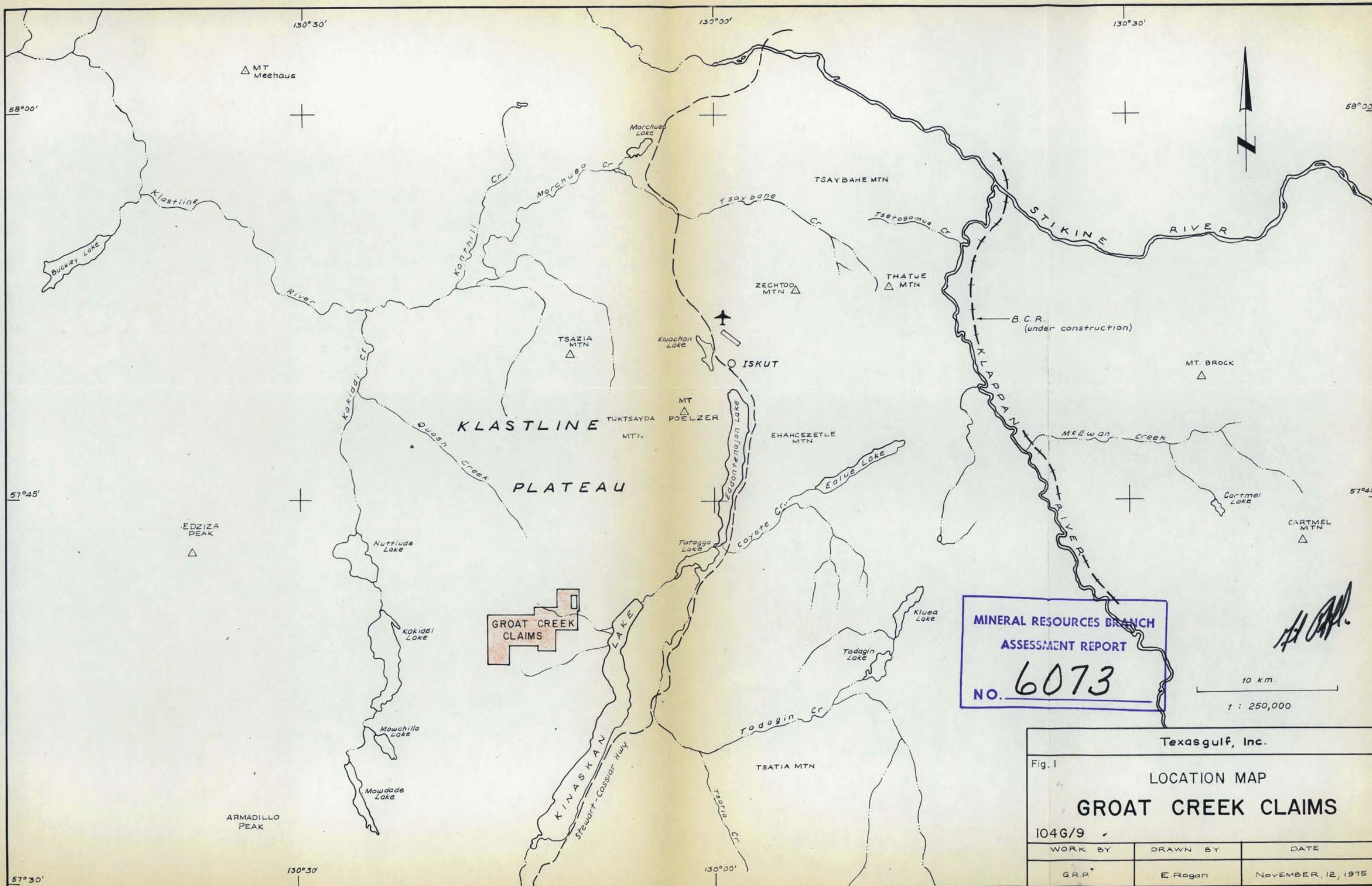
The Groat Creek property, consisting of 10 contiguous mineral claims aggregating 91 units, was staked on behalf of Texasgulf Canada Ltd. during the 1975 and 1976 field seasons. The claims cover areas containing copper mineralization in altered monzodiorite and intruded Upper Triassic volcano-sedimentary rocks.

This report is based on data obtained from a programme of preliminary mapping, geophysical surveys and a B.C.L.S. claim location survey.

LOCATION, ACCESS & TERRAIN

The property is located in the Liard Mining Division, approximately 21 km. S.W. of Iskut, B.C., at 57° 40' N lat. and 130° 12' W long. (see Fig. 1). It is accessible by helicopter from Iskut or points along the Stewart-Cassiar highway. Alternate access is by boat along the west shore of Kinaskan Lake to a point 2.5 km. from the south end and then by "cat" road to the property.

The Groat Creek property lies within the Central Plateau - Mountain Area of the Interior system of the Canadian Cordillera. The property is located on the southern flank of the Klastline Plateau at elevations of 900 to 1600 metres and consists of a moderate westward sloping surface cut by several deeply incised stream gullies. To the east the terrain slopes steeply to Kinaskan Lake. Vegetation consists of grasslands above 1200 metres grading down into buckbrush, slide alder, balsam and spruce. A very high percentage of outcrop is above 1300 metres, on the steep flanks of the plateau and in the stream cuts.


130°30'
130°00'
130°30'
58°00'
58°00'
57°45'
57°45'
57°30'
MT Meehaus
Morchuea Lake
Morchuea Cr.
Klastline
Buckley Lake
River
Konthill Cr.
Tsaybahe Cr.
TSAYBAHE MTN
Tsetogamus Cr.
STIKINE RIVER
ZECHTOO MTN
THATUE MTN
B.C.R. (under construction)
TSAZIA MTN
Kluachon Lake
ISKUT
MT. BROCK
Kakiddi Cr.
Quash Creek
KLASTLINE
PLATEAU
TUKTSAYDA MTN
MT POELZER
Eddontenajon Lake
EHAHCEZETLE MTN
Eaiue Lake
KLAPPAN RIVER
McEwan Creek
Cartmel Lake
CARTMEL MTN
EDZIZA PEAK
Nuttlude Lake
Tatogga Lake
Coyote Cr.
GROAT CREEK CLAIMS
Kakiddi Lake
Kluea Lake
Todagin Lake
Todagin Cr.
Mowchilla Lake
Mowdade Lake
KINASKAN LAKE
Stewart-Cassiar Hwy
TSATIA MTN
Tsatia Cr.
ARMADILLO PEAK
N
10 km.
1 : 250,000
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6073
Texasgulf, Inc.
Fig. 1
LOCATION MAP
GROAT CREEK CLAIMS
104G/9
WORK BY
G.R.P.
DRAWN BY
E. Rogan
DATE
NOVEMBER, 12, 1975

HISTORY

In the early 1960's, G.W. Mannard, then with Southwest Potash Corporation, located a copper showing by sampling streams flowing into Kinaskan Lake. At that time Southwest Potash was exploring for molybdenum and had little interest in showings of copper with no molybdenum. Subsequently, this discovery was covered by the Wolf claims, owned by Nuspar Resources Ltd. These claims lapsed in 1975. Work had included mapping all 6 claims at a scale of 1 inch equals 50 feet.

WOLF showing

A discovery of copper mineralization was made, in 1964, in the upper stretch of Groat Creek[1] by Conwest Exploration Company Ltd. Mineralization consisted of a quartz-pyrite-chalcopyrite stockwork in the "rhyolite" over about 160 feet. Induced polarization and magnetometer surveys were run in 1965, over an area of 6,000 by 6,000 feet. In 1970-71, Amoco Canada Petroleum Company Ltd. constructed a "cat" road from the west shore of Kinaskan Lake to the property, mapped, soil sampled, ran approximately 20 miles of I.P., and did some 13,000 feet of diamond drilling.

GJ showing

In 1975, Texasgulf Canada Ltd. staked five claims covering these two showings. The Goat property consisting of four claims (49 units) covered Conwest's old GJ showing and the Noodle claim (9 units) to the

1 This is a local name only and is not recognized by the National Topographic Survey.

northeast covered the old Wolf showing. Unfortunately, in both instances, the ground immediately over the showings is held by rival concerns. The two properties were joined together in 1976, when five additional claims were staked by Texasgulf Canada (see Fig. 2). Work in 1976 consisted of geologic mapping of the property, I.P. and magnetometer surveys over some 10.6 km, and a B.C.L.S. claim location survey.

Geol. map shows WOLF showing on NOODLE claim.

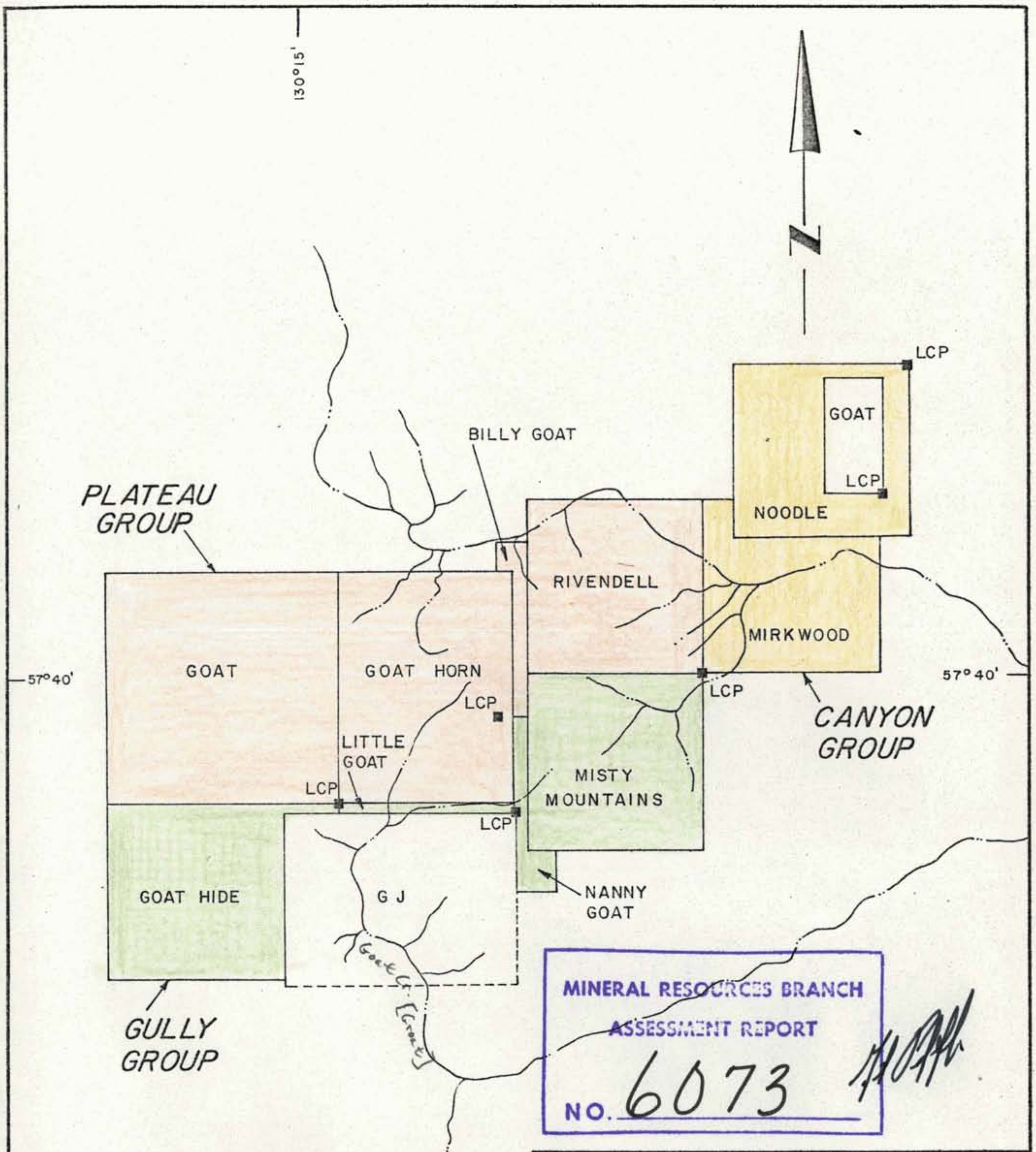
GRID ESTABLISHMENT

In order to provide control for geophysical surveys, a total of 10.6 km. of grid was established (Fig. 3) involving a baseline and eleven cross-lines, spaced at 120 metres. The baseline and cross-lines were transit controlled and picketed. This work was performed by Texasgulf and Bear-X Mining and Exploration Services personnel.

GEOLOGY

General Geology

The Groat Creek property is underlain by moderate to steeply dipping volcanic and sedimentary rocks of presumed Upper Triassic age. These rocks were intruded by a northeast trending elongate body of fine grained to porphyritic hornblende monzodiorite (see Fig. 4). The northern portion of this pluton, mainly hornblende monzodiorite porphyry, intruded predominantly volcaniclastic rocks. The intrusive rocks are strongly fractured and faulted. North trending faults appear to be important in concentrating mineralization with a few showings of chalcopyrite, including the Wolf discovery, occurring in north-south shear zones. Chalcopyrite also occurs as disseminations and in rare quartz veins. Malachite and azurite are found locally.



Texasgulf, Inc.

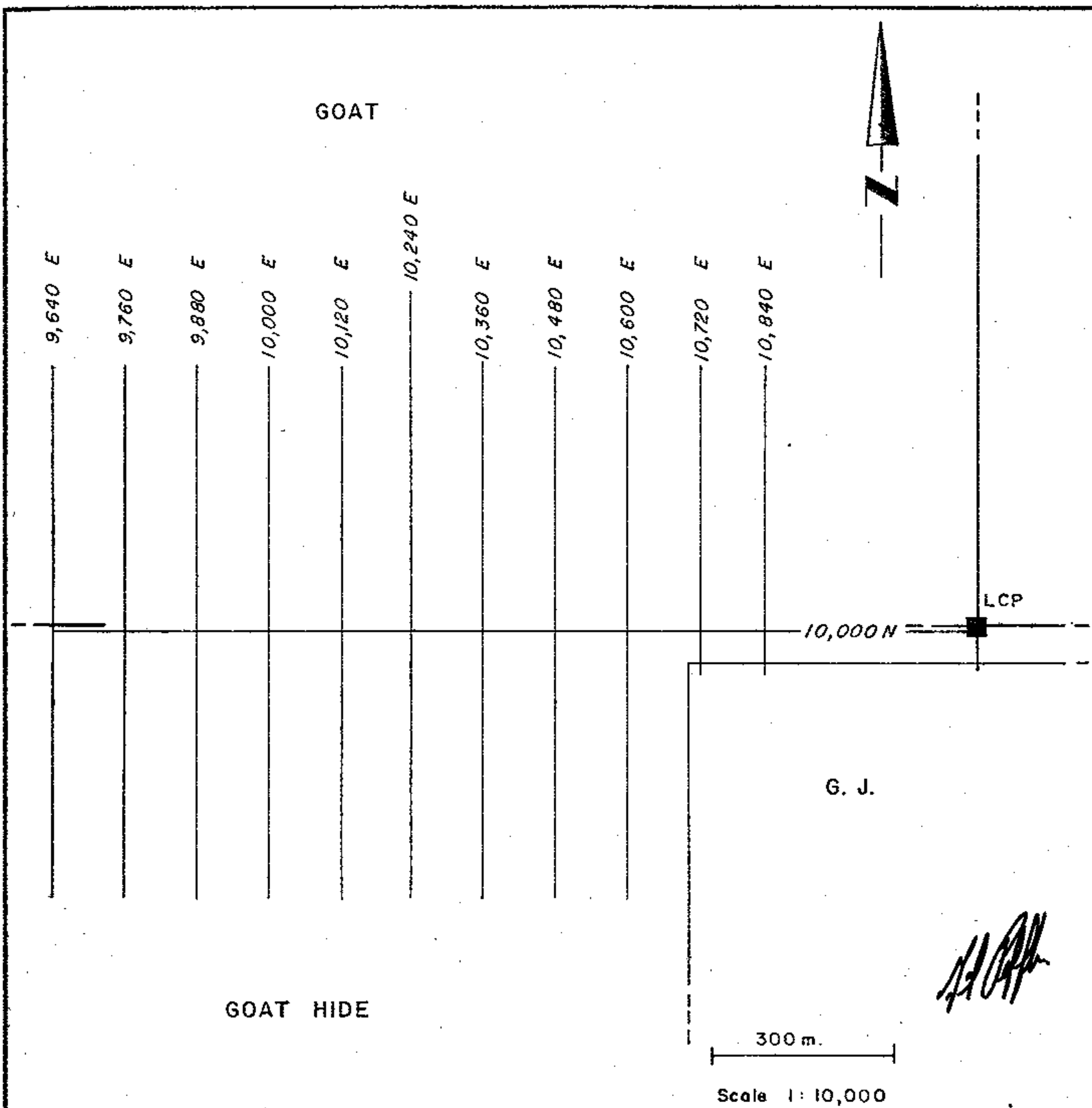
Fig. 2

CLAIM GROUPING SKETCH

GROAT CREEK CLAIMS

104 G/9

WORK BY	DRAWN BY	DATE
G.R.P.	E.R.	OCTOBER, 1976



Texasgulf, Inc.

Fig. 3

GRID LAYOUT SKETCH

GROAT CREEK CLAIMS

104 G/9

WORK BY	DRAWN BY	DATE
G.R.P.	E.R.	OCTOBER, 1976

The southwestern extension of the pluton cuts mainly sedimentary rocks but some volcaniclastic rocks are present. Here the intrusive varies from hornblende monzodiorite porphyry in the north to a fine grained equigranular monzodiorite in the south. Mineralization occurs predominantly as disseminations of the chalcopyrite although some quartz-pyrite-chalcopyrite veining and chalcopyrite on fractures in shear zones were observed.

Contacts of the intrusive with the surrounding country rocks are usually sharp but locally are complicated by dyking and assimilation. Thermal effects of the intrusive appear to be minimal with only minor hornfelsing of some of the sedimentary rocks.

Alteration

Alteration types present in the rocks of the Groat Creek property include, in order of relative predominance, chloritization, K-feldspar-epidote alteration, quartz-carbonate alteration. Large scale alteration zoning patterns were not recognized.

Chloritization occurs primarily as propylitization of primary hornblendes in the intrusive and augites in the volcanic rocks. It also occurs as selvages surrounding epidote veins and with serpentine on shear surfaces.

K-feldspar-epidote alteration of the intrusive rocks results in a characteristic pink and green colour. This is most prevalent near the apparent "necking" of the intrusive. Here the rocks are well shattered and alteration is pervasive. Veins of K-feldspar or epidote up to 10 cm. across are numerous in the northeastern portions of the intrusive.

Quartz-carbonate alteration is intense around fault zones in the country rock. Locally, galena-sphalerite mineralization accompanies these zones.

Structure

The structural picture is complicated by the lack of distinctive marker beds, and by faulting and overburden cover. Important faults plotted on the geologic map were derived from field observations and extended on the basis of topography. The most important of these are north to northeast trending faults along which much of the concentrated mineralization occurs.

GEOPHYSICAL SURVEYS

Geophysical work, consisting of I.P. and magnetometer surveys over the established grid, was done under the direction of D. Londry, Texasgulf Geophysicist. (The results of these surveys are given in a report by W.A. Gasteiger, Texasgulf Geophysicist, and included as an Appendix.)

CLAIM LOCATION SURVEY

McElhanney Associates provided a two-man crew and equipment to survey key legal Corner Posts. This was done during August, 1976 and the results are shown on Figure 9.

D.A. Donnelly

D.A. Donnelly

G.R. Peatfield

APPENDIX A

GEOPHYSICAL REPORT by W.A. GASTEIGER

TEXASGULF CANADA LIMITED

REPORT ON GEOPHYSICAL WORK

GROAT CREEK AREA

BRITISH COLUMBIA

November, 1976

W.A. Gasteiger

TEXASGULF CANADA LIMITED

REPORT ON GEOPHYSICAL WORK

GROAT CREEK AREA

BRITISH COLUMBIA

INTRODUCTION:

Geophysical surveys consisting of induced polarization and proton precession magnetometer traverses were performed over a portion of the Goat and Goathide claim groups.

The property is located approximately five miles northwest of Kiniskan Lake in the Stikine area of British Columbia.

The surveys commenced August 27th. and were under the direction of Douglas Londry. Surveying finished on September 9, 1976.

SURVEY DETAILS:

In total, ten lines were surveyed for a total of 9700 metres of line. Line spacing was 120 metres.

The induced polarization survey was run using a dipole-dipole electrode configuration. Thirty metre dipoles were employed with "n" values equal to one, two or three (i.e. spacing between current and potential dipoles equal to 30, 60, and 90 metres.

Magnetometer readings were taken at 30 metre intervals with fifteen metre stations read over anomalous areas.

SURVEY RESULTS:

The induced polarization appears to be dominated by two main sulphide systems. One appears in the northwest corner of the grid. The other more or less covers the south half of the grid.

The sulphide system in the northwest corner is characterised by localized chargeability highs, fairly low resistivity and a distinct lack of magnetic expression. These localized chargeability highs represent lens-like concentrations of approximately 7 to 8% sulphides. On Line 9,880E at 10,225N and Line 10,120E at 10,345N, distinct resistivity lows are coincident with chargeability highs. These are areas where the sulphide content may be somewhat higher.

The chargeability pattern in the south is fairly complex. At first glance, it appears to consist mainly of a straight-forward linear high that strikes east-west just south of the base line. However, parts of this linear trend appear directly associated with zones of high magnetics while others are removed from the magnetics. Looking at the pseudo-sections, one can see that to the south of the chargeability high, the area shows slightly anomalous chargeability (usually improving with the higher "n" values).

INTERPRETATION:

The map area can be divided into three main regions.

Area 1 - includes the small sulphide zones in the northwest and can be considered to be roughly bounded by 58,000 gamma contours on the magnetic map. This low susceptibility unit is probably a felsic intrusive. There appears to be two mineralized zones. The more southerly one is continuous and runs from Line 9760E to Line 10,240E. This zone appears to be at least thirty metres wide and with its high chargeability, low resistivity, and associated chalcopyrite showings is a definite zone of interest. This zone seems to be at a greater depth on Lines 10,120E and 10,240E.

The north zone is very inconsistent. It appears as a wide strong anomaly on Line 9,880E, fades out on 10,000E and appears again weakly on Lines 10,120E and 10,240E. On the latter two lines, the n = 1 response is the strongest, possibly indicating that this zone has little depth extent.

The second region consists of a low chargeability, low resistivity, and high magnetic susceptibility unit. This unit appears to underlie most of the north-east quarter of the grid. The magnetic anomaly that runs from Line 10,000E at 1,120N to Line 10,240E at 10075N has similar induced polarization characteristics and has been included with the unit. By Lines 10,360E and 10,480E, this mag high comes close to another high to the south. It becomes hard to resolve but on close examination still appears to exist. To the west of Line 10,000E, this unit either dies out or is faulted to the south.

The final area is the sulphide system to the south. From Line 10,000E to 10,840E, the north boundary of this zone is defined by a fairly wide (usually greater than 100 metres) magnetic sequence. Usually half way through this sequence, high chargeability values begin. There is no geological evidence for a mineralized intrusion in this area; however, the geophysical expression of this boundary strongly suggests the alteration zone of an intrusion to the south. There is even a slight hint of an elliptical pattern to whole sulphide system.

CONCLUSION AND RECOMMENDATIONS:

The mineralized south zone in area one represents a definite drill target. Dips on the zone seems to be slightly to the south. A drill hole on Line 10,000E should produce a thirty metre intersection of approximately six to seven percent sulphide.

The area to the south possibly is a mineralized porphyry. The appropriate measures should be taken to determine if it is, either percussion drilling, or deep soil sampling.

William Gasteiger

November, 1976

W.A. Gasteiger

APPENDIX B

STATEMENTS OF QUALIFICATION

STATEMENTS OF QUALIFICATION

Texasgulf Personnel

D.A. Donnelly - Geologist

Mr. Donnelly obtained his B.Sc. degree in Geology from the University of British Columbia in 1976. While attending university, he was employed in exploration during the summer field seasons of 1974 and 1975 by Texasgulf Inc. He was employed by Texasgulf Inc. in 1976 as an exploration geologist.

W.A. Gasteiger - Geophysicist

Mr. Gasteiger obtained his B.Sc. in Geological Science (Geophysics Option) from Queen's University. He has been continuously employed, as a geophysicist, by Texasgulf Inc. since graduation. Mr. Gasteiger is a member of the Association of Professional Engineers of the Province of Ontario.

D. Londry - Geophysicist

Mr. Londry obtained his B.Sc. degree in Earth Sciences from the University of Windsor in 1976. He was employed by Texasgulf Inc. during the 1975 field season as a geophysical assistant. Since graduation he has been employed by Texasgulf as a geophysicist and will join the permanent staff in January 1977.

R.H. Schmitt - Student Assistant

Mr. Schmitt is presently enrolled in fourth year Geology at the University of British Columbia. He was employed by Texasgulf Inc. as a geological field assistant for the 1975 and 1976 field seasons, and was regarded as a keen, competent and conscientious employee.

J. Irish - Student Assistant

Mr. Irish is presently enrolled in second year Earth Sciences at the University of Toronto. He was employed by Texasgulf Inc. as a geophysical assistant for the 1976 field season, and was regarded as a keen, competent and conscientious employee.

J. Innis - Student Assistant

Mr. Innis is presently enrolled in third year Earth Sciences at Queen's University, Kingston. He was employed by Texasgulf Inc. as a field assistant for the 1976 field season, and was regarded as a keen, competent and conscientious employee.

D. Dennis - Field Assistant

Mr. Dennis was employed by Texasgulf Inc. during the 1976 field season, where his work included linecutting and assisting on I.P. and magnetometer surveys. He is regarded as experienced and competent in these areas.

D. Quock - Field Assistant

Mr. Quock was employed by Texasgulf Inc. during the 1976 field season, where his work included linecutting and assisting on I.P. surveys. He is regarded as experienced and competent in these areas.

APPENDIX C

STATEMENT OF EXPENDITURES

STATEMENTS OF QUALIFICATION

Bear-X Personnel

R.J. Barclay

Mr. Barclay is manager of Bear-X Geology & Exploration Services Ltd., where his work included linecutting, trenching and surveys of a geophysical and geochemical nature. He is regarded as experienced and competent in these areas.

J. Baird

Mr. Baird was employed by Bear-X during the 1976 field season, where his work included linecutting and assisting on I.P. surveys. He is regarded as experienced and competent in these areas.

STATEMENT OF EXPENDITURES

GULLY & PLATEAU GROUPS

Note: Costs can be apportioned on a 50-50 basis to these two groups.

Salaries & Fringe Benefits - Texasgulf Inc.

G.R. Peatfield, P.Eng. - Superv. & Interp.		
Period Aug. 25 - Oct. 22	- 8 days @ $110	$ 880.00
D.A. Donnelly - Geologist		
Period Aug. 24 - Oct. 22	- 14 days @ $ 45	630.00
R.H. Schmitt - Geological Assistant		
Aug. 24 - 30	- 7 days @ $ 36	252.00
D. Londry - Geophysicist		
Period Aug 27 - Oct. 22	- 19 days @ $ 55	1,045.00
J. Irish - Geophysical Assistant		
Aug. 27 - 29	- 3 days @ $ 40	120.00
J. Innis - Field Assistant		
Aug. 25 - 30	- 6 days @ $ 30	180.00
D. Dennis - Field Assistant		
Period Aug. 25 - Sept. 13	- 16 days @ $ 45	720.00
D. Quock - Field Assistant		
Period Aug. 31 - Sept. 13	- 10 days @ $ 45	450.00

Bear-X Geology & Exploration Services

R.J. Barclay - Manager		
Period Aug. 25 - 31	- 6 days @ $ 85	510.00

J. Baird - Field Assistant			
Aug. 26 - 30	- 5 days @ $ 64	320.00	
		$5,107.00	$5,107.00

<u>B.C.L.S. Costs</u>

McElhanney Survey Crew With Equipment	
1.5 days @ $330	$ 495.00

<u>Camp Expenses</u>

Total Crew 84 Man-days @ $25	$2,100.00

<u>Helicopter Support</u>

Texasgulf Bell 206B - 30 hrs. @ $300	$9,000.00

<u>Report Preparation</u>

Drafting, Secretarial, Reproduction, etc.	$ 500.00

<u>Travel, Shipping, etc.</u>

Travel	$1,400.00	
Shipping	300.00	
Equipment Rental	300.00	
Communications	100.00	
Auto Expense	100.00	
	$2,200.00	$2,200.00
		$19,402.00

G.R. Peatfield, P.Eng.

STATEMENT OF EXPENDITURES

CANYON GROUP

Salaries & Fringe Benefits:

Texasgulf, Inc.

G. R. Peatfield, P. Eng. - Supervision May 29 - 1/2 day @ $110.00	$55.00
D. A. Donnelly - Geologist Aug. 13, 14, 21, 23 - 4 days @ $45.00	180.00
R. H. Schmitt - Assistant Aug. 13, 14, 21, 23 - 4 days @ $36.00	144.00
	$379.00

B.C.L.S. Costs

McElhanney Survey Crew, with equipment 1-1/2 days @ $330.00	495.00

Camp Expenses

10 days @ $25.00	250.00

Helicopter Support

Texasgulf Bell 206 B 3.5 hours @ $300.00	1,050.00
TOTAL	$2,174.00

J. M. Newell, P. Eng.

LEGEND

MAGNETOMETER : Geometrics G816

TRANSMITTER : Crone 250 watt I. P. transmitter

RECEIVER : Crone N-IV I.P. receiver

CHARGING TIME : 2·0 seconds

OFF TIME : 2·0 seconds

DELAY TIME : 0·45 seconds

INTEGRATION TIME : 0·45 seconds

ELECTRODE CONFIGURATION : DIPOLE - DIPOLE

a = 30 metres

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

NO. 6073

MAP NO. #1

6073

TEXASGULF Inc.

Fig 5a

Groat Creek Claims , B. C.

LINE
9,760 E

LEGEND

MAGNETOMETER : Geometrics G816

TRANSMITTER : Crone 250 watt I.P. transmitter

RECEIVER : Crone N-IV I.P. receiver

CHARGING TIME : 2·0 seconds

OFF TIME : 2·0 seconds

DELAY TIME : 0·45 seconds

INTEGRATION TIME : 0·45 seconds

ELECTRODE CONFIGURATION : DIPOLE - DIPOLE

a = 30 metres

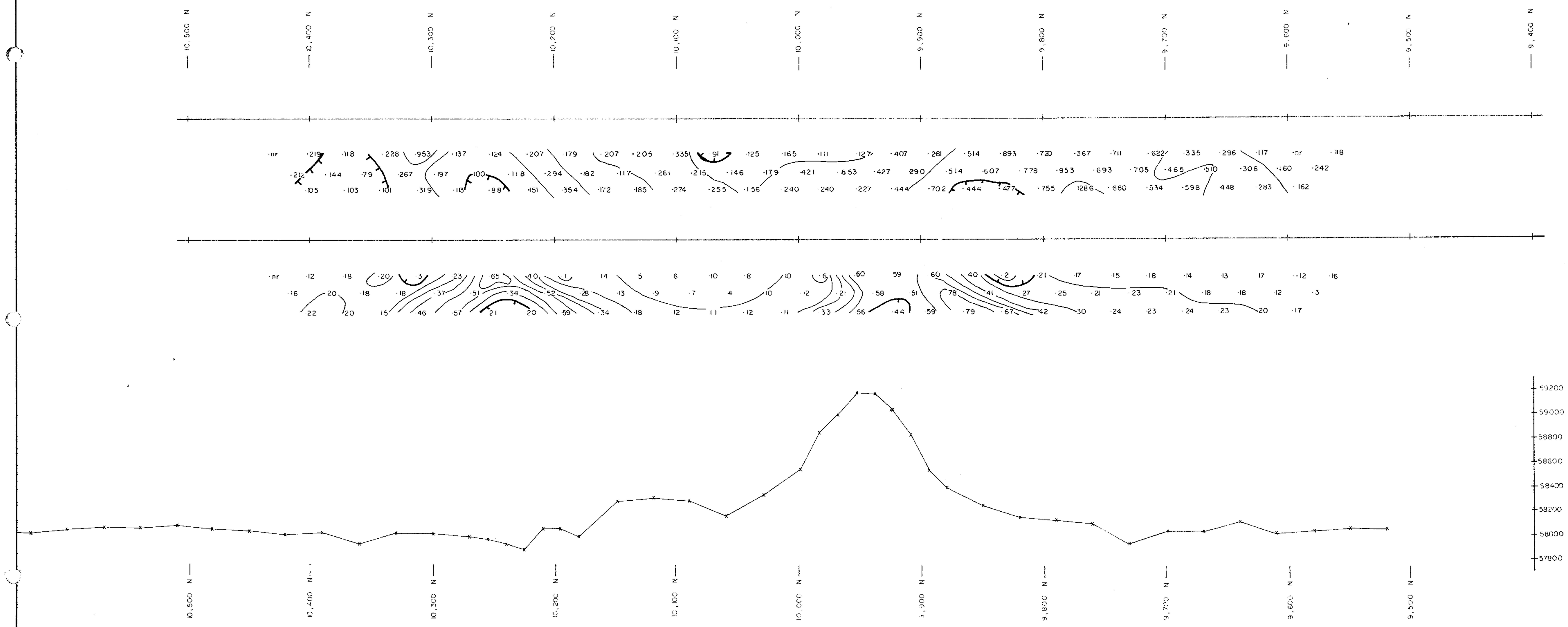
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6073
MAP NO. #2

TEXASGULF Inc.

Fig. 5b

Groat Creek Claims, B.C.

LINE
9,880 E



APPARENT RESISTIVITY
(ohm-metres)

CHARGEABILITY
(milliseconds)

MAGNETICS
(gammas)

6073

LEGEND

MAGNETOMETER : Geometrics G816

TRANSMITTER : Crone 250 watt I.P. transmitter

RECEIVER : Crone N-IV I.P. receiver

CHARGING TIME : 2·0 seconds

OFF TIME : 2·0 seconds

DELAY TIME : 0·45 seconds

INTEGRATION TIME : 0·45 seconds

ELECTRODE CONFIGURATION : DIPOLE - DIPOLE

a = 30 metres

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6073
MAP NO. #3

TEXASGULF Inc.

Fig. 5c

Groat Creek Claims , B. C.

LINE
10,000 E

NTS 104-G/9 | Drawn By: C. E. Kost

LEGEND

MAGNETOMETER : Geometrics G816

TRANSMITTER : Crone 250 watt I.P. transmitter

RECEIVER : Crone N-IV I.P. receiver

CHARGING TIME : 2·0 seconds

OFF TIME : 2·0 seconds

DELAY TIME : 0·45 seconds

INTEGRATION TIME : 0·45 seconds

ELECTRODE CONFIGURATION : DIPOLE – DIPOLE

a = 30 metres

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6073
MAP NO. #4

6073

TEXASGULF Inc.

Fig. 5d

Groat Creek Claims, B.C.

LINE
10,120 E

N.T.S. 104 - G / 9 | Drawn By : D. E. Liist

LEGEND

MAGNETOMETER : Geometrics G816

TRANSMITTER : Crone 250 watt I.P. transmitter

RECEIVER : Crone N-IV I.P. receiver

CHARGING TIME : 2·0 seconds

OFF TIME : 2·0 seconds

DELAY TIME : 0·45 seconds

INTEGRATION TIME : 0·45 seconds

ELECTRODE CONFIGURATION : DIPOLE – DIPOLE

a = 30 metres

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6073
MAP NO. #5

TEXASGULF Inc.

Fig. 5e

Groat Creek Claims, B.C.

LINE
10,240 E

6073

LEGEND

MAGNETOMETER : Geometrics G816

TRANSMITTER : Crone 250 watt I.P. transmitter

RECEIVER : Crone N-IV I.P. receiver

CHARGING TIME : 2·0 seconds

OFF TIME : 2·0 seconds

DELAY TIME : 0·45 seconds

INTEGRATION TIME : 0·45 seconds

ELECTRODE CONFIGURATION : DIPOLE - DIPOLE

a = 30 metres

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6073
MAP NO. #6

TEXASGULF Inc.

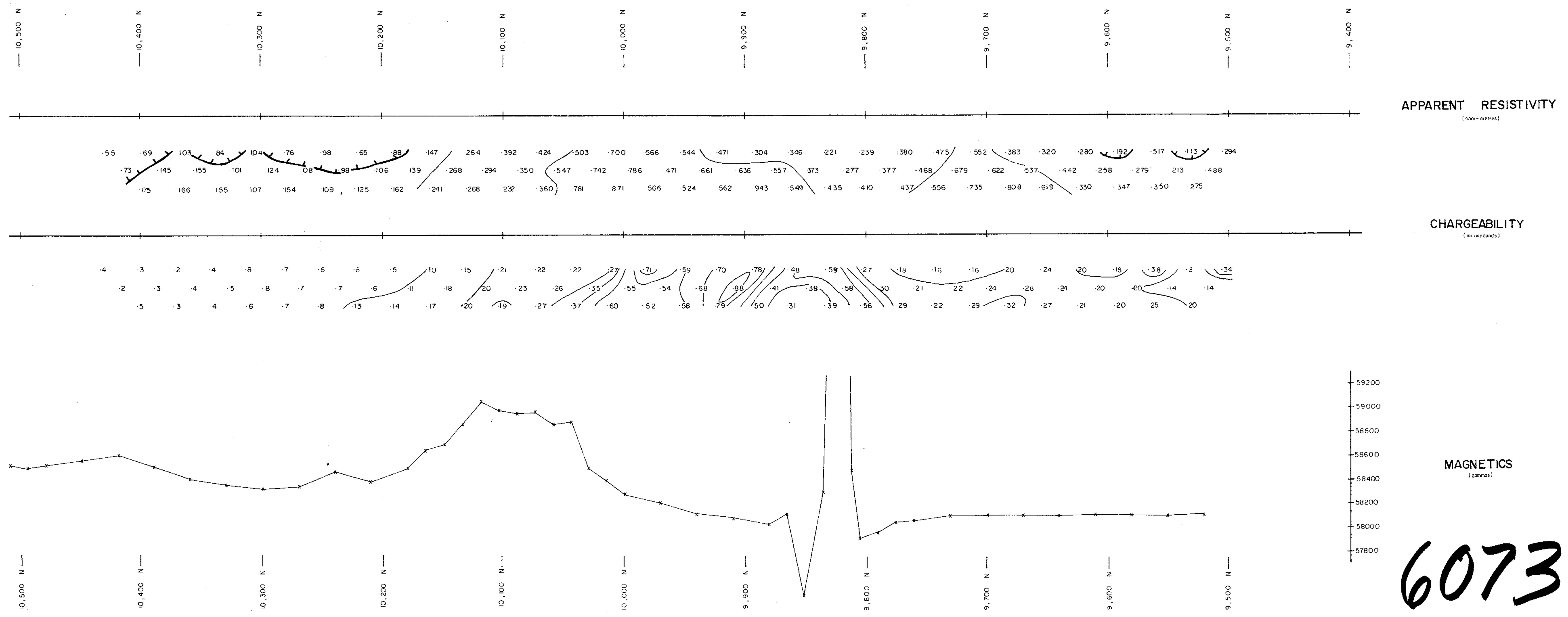
Fig. 5f

Groat Creek Claims , B. C.

LINE
10,360 E

N.T.S. 104 - G / 9

Drawn By : D. E. Last



6073

LEGEND

MAGNETOMETER : Geometrics G816

TRANSMITTER : Crone 250 watt I.P. transmitter

RECEIVER : Crone N-1V I.P. receiver

CHARGING TIME : 2·0 seconds

OFF TIME : 2·0 seconds

DELAY TIME : 0·45 seconds

INTEGRATION TIME : 0·45 seconds

ELECTRODE CONFIGURATION : DIPOLE – DIPOLE

a = 30 metres

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6073
MAP NO. #7

TEXASGULF Inc.

Fig. 5g

Groat Creek Claims, B. C.

LINE
10,480 E

N.T.S. 104 - G / 9 | Drawn By D. E. L...

LEGEND

MAGNETOMETER : Geometrics G816

TRANSMITTER : Crone 250 watt I.P. transmitter

RECEIVER : Crone N-IV I.P. receiver

CHARGING TIME : 2·0 seconds

OFF TIME : 2·0 seconds

DELAY TIME : 0·45 seconds

INTEGRATION TIME : 0·45 seconds

ELECTRODE CONFIGURATION : DIPOLE - DIPOLE

a = 30 metres

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6073
MAP NO. #8

TEXASGULF Inc.

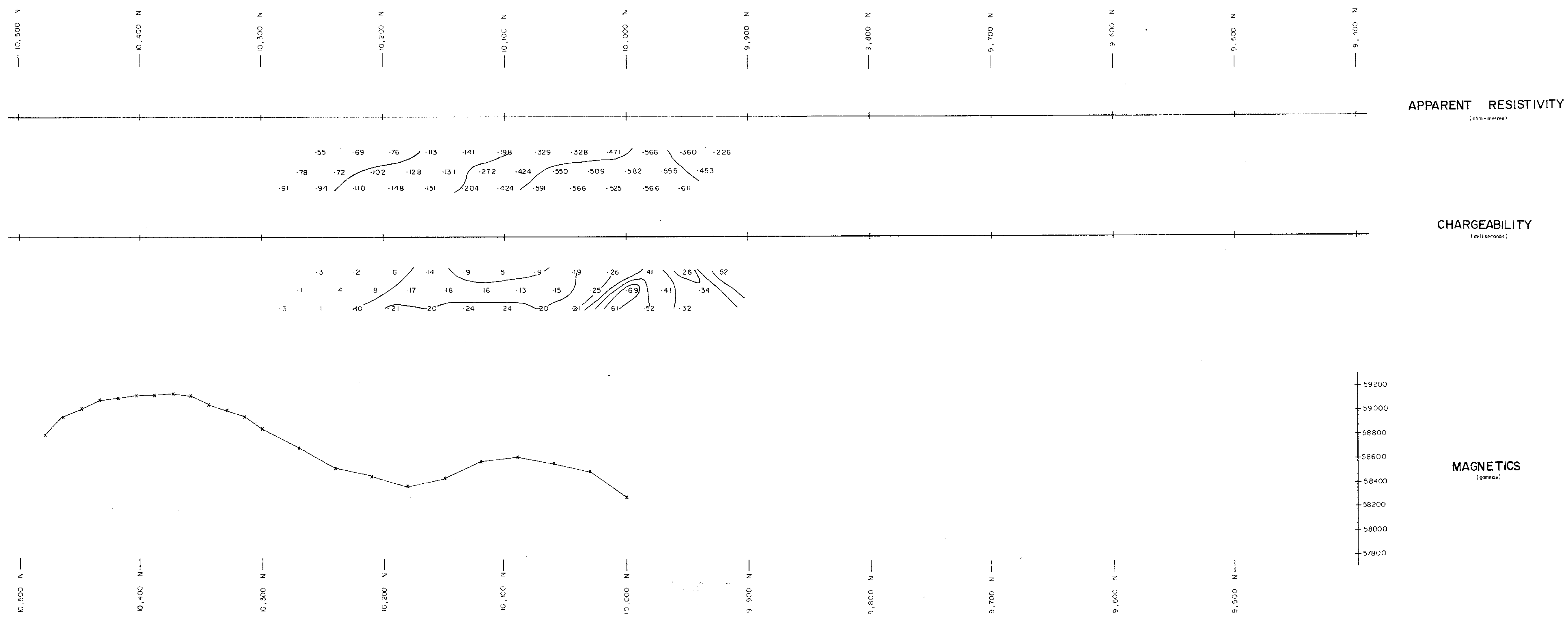
Fig. 5L

Groat Creek Claims, B.C.

LINE
10,600 E

N.T.S. 104 - G / 9 | Drawn By D. E. Last


10,500 N
10,400 N
10,300 N
10,200 N
10,100 N
10,000 N
9,900 N
9,800 N
9,700 N
9,600 N
9,500 N
9,400 N
APPARENT RESISTIVITY
(ohm-metres)
CHARGEABILITY
(milliseconds)
MAGNETICS
(gammas)
59200
59000
58800
58600
58400
58200
58000
57800
LEGEND
MAGNETOMETER : Geometrics G 816
TRANSMITTER : Crone 250 watt I.P. transmitter
RECEIVER : Crone N-IV I.P. receiver
CHARGING TIME : 2·0 seconds
OFF TIME : 2·0 seconds
DELAY TIME : 0·45 seconds
INTEGRATION TIME : 0·45 seconds
ELECTRODE CONFIGURATION : DIPOLE – DIPOLE
a = 30 metres
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6073
MAP NO. #9
6073
TEXASGULF Inc.
Fig. 5i
Groat Creek Claims , B. C.
LINE
10,720 E
N.T.S. 104-G/9
Drawn By D. E. L.



LEGEND

MAGNETOMETER : Geometrics G 816

TRANSMITTER : Crone 250 watt I.P. transmitter

RECEIVER : Crone N-IV I.P. receiver

CHARGING TIME : 2·0 seconds

OFF TIME : 2·0 seconds

DELAY TIME : 0·45 seconds

INTEGRATION TIME : 0·45 seconds

ELECTRODE CONFIGURATION : DIPOLE – DIPOLE

a = 30 metres

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT

NO. 6073

MAP NO. #10

6073

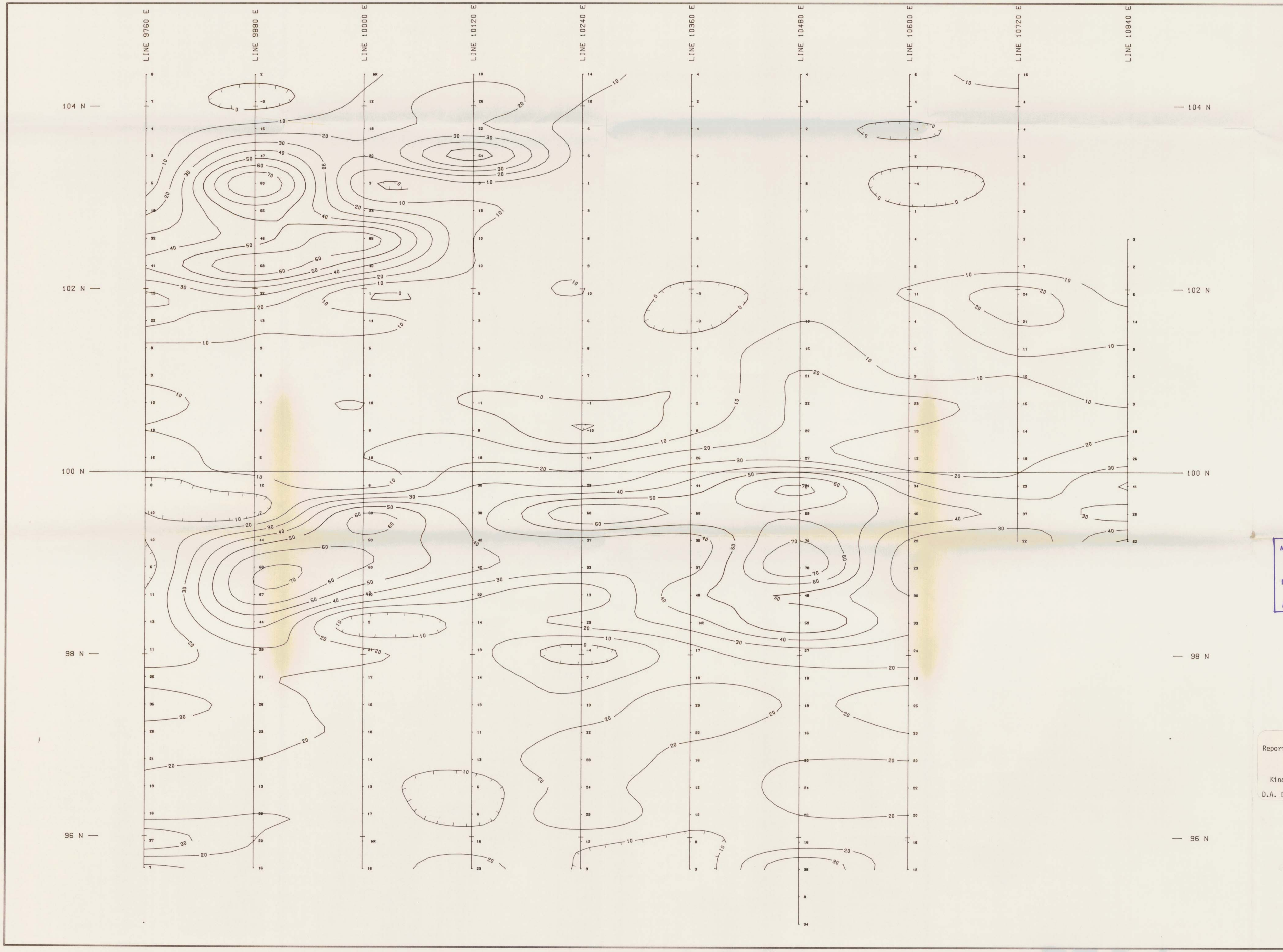
TEXASGULF Inc.

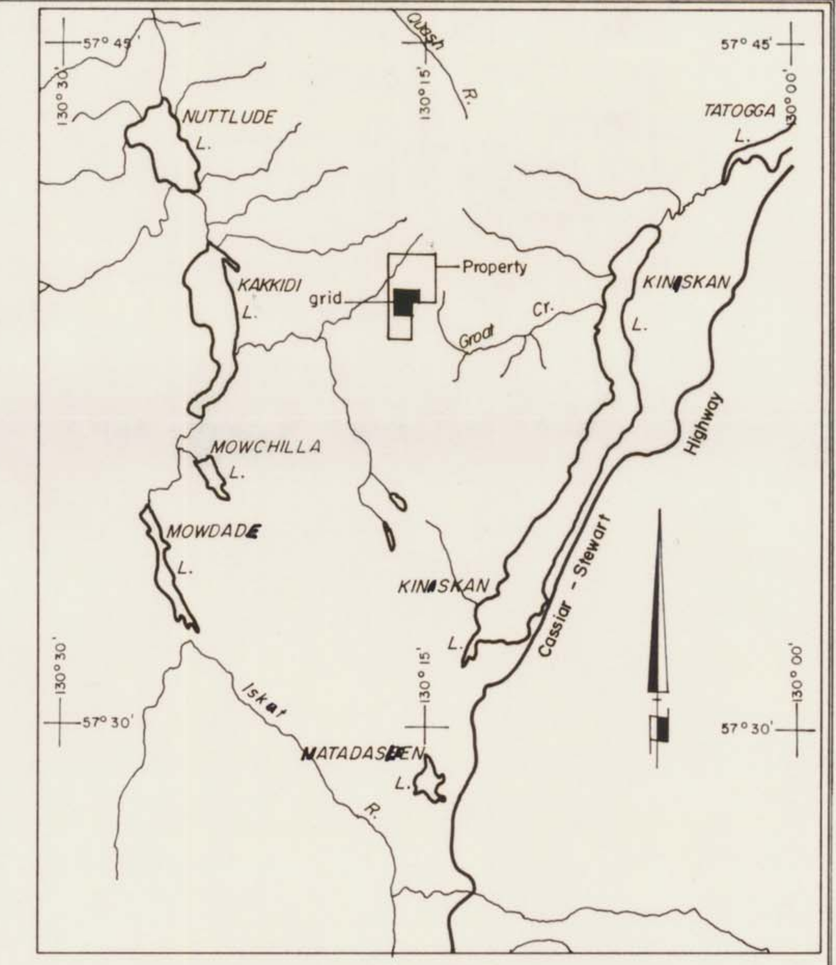
Fig. 5j

Groat Creek Claims, B. C.

LINE
10,840 E

N.T.S. 104-G/9 | Drawn By





KEY MAP

Scale
0 5m
0 5km

N
ASTRO

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6073
MAP NO. #11

LEGEND

TRANSMITTER : CRONE 250 WATT IP TRANSMITTER
RECEIVER : CRONE N-10 I.P. RECEIVER

CHARGING TIME : 2.0 SECONDS
OFF TIME : 2.0 SECONDS
DELAY TIME : 0.45 SECONDS
INTEGRATION TIME : 0.45 SECONDS

ELECTRODE CONFIGURATION : DIPOLE-DIPOLE
A = 30 METERS N = 1

READINGS : APPARENT CHARGEABILITY IN MILLISECONDS

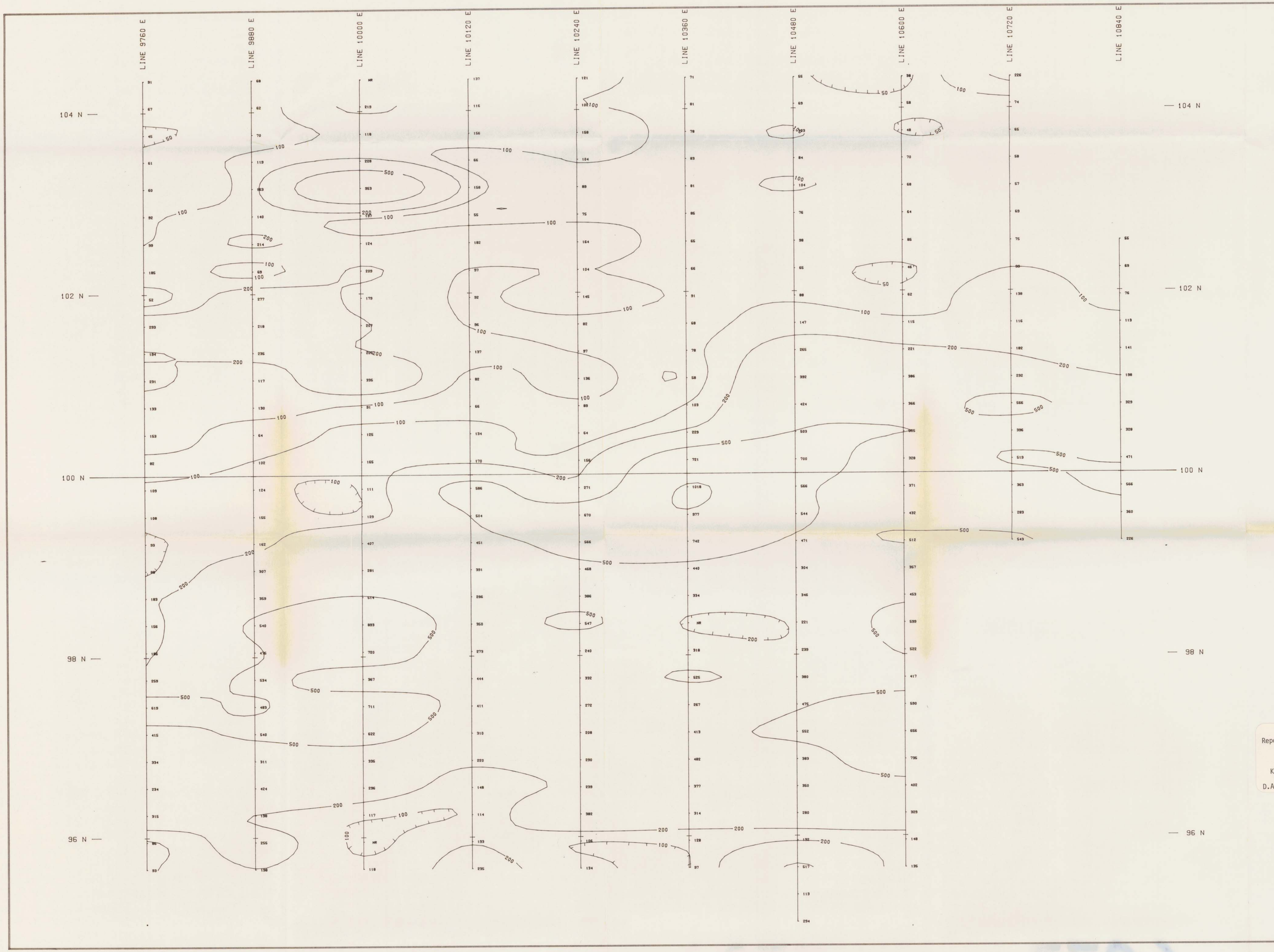
To Accompany
Report on Geological & Geophysical Surveys
& Supporting Work
GROAT CREEK CLAIMS
Kinaskan Lake area, Liard Mining Division
by
D.A. Donnelly, G.R. Peatfield & W.A. Gasteiger

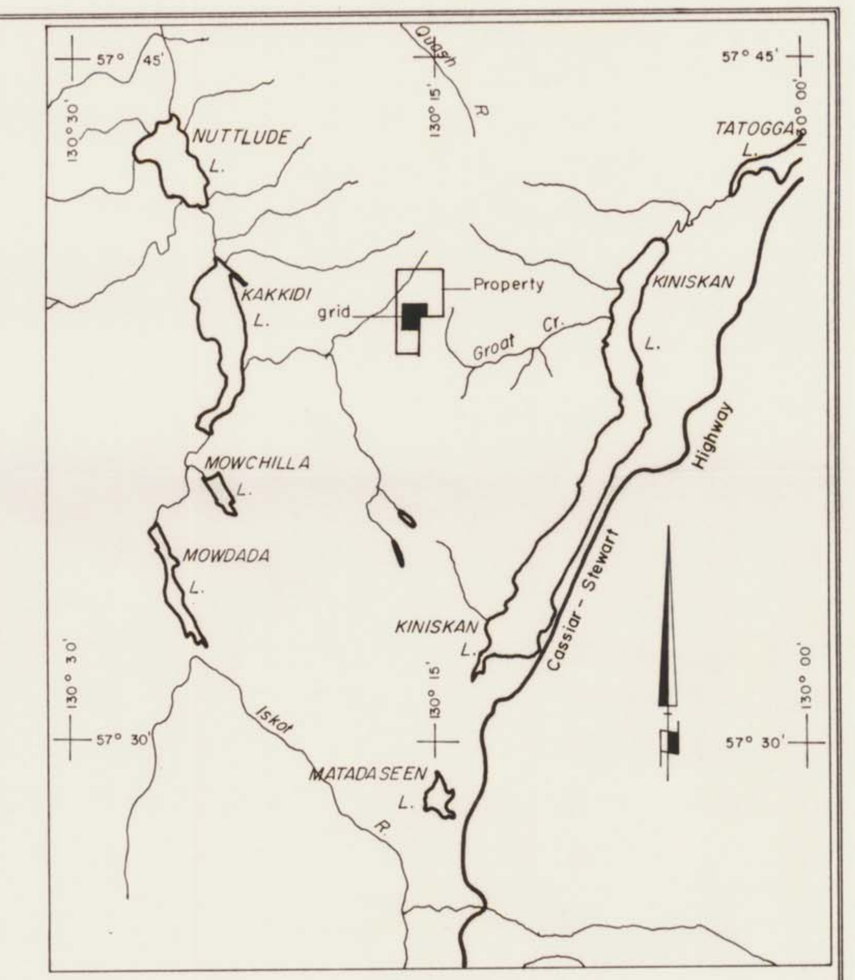
0 40 80 120 160 200
METERS (1:2000)

Fig. 6

TEXASGULF CANADA LTD.	
I.P. SURVEY (CHARGEABILITY)	
GROAT CREEK CLAIMS	
NTS:104G9	PROJ. #989
WORK BY	DATE
D.A.L.	Nov. 1976

6073





KEY MAP

Scale 0 5 km

N ASTRO

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6073
MAP NO. #12

LEGEND

TRANSMITTER : CRONE 250 WATT IP TRANSMITTER
RECEIVER : CRONE N-10 I.P. RECEIVER

CHARGING TIME : 2.0 SECONDS
OFF TIME : 2.0 SECONDS
DELAY TIME : 0.45 SECONDS
INTEGRATION TIME : 0.45 SECONDS

ELECTRODE CONFIGURATION : DIPOLE-DIPOLE
A = 30 METERS N = 1

READINGS : APPARENT RESISTIVITY IN OHM-METERS

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Kinaskan Lake area, Liard Mining Division
by
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0 40 80 120 160 200
METERS (1:2000)

Fig. 7

TEXASGULF CANADA LTD.

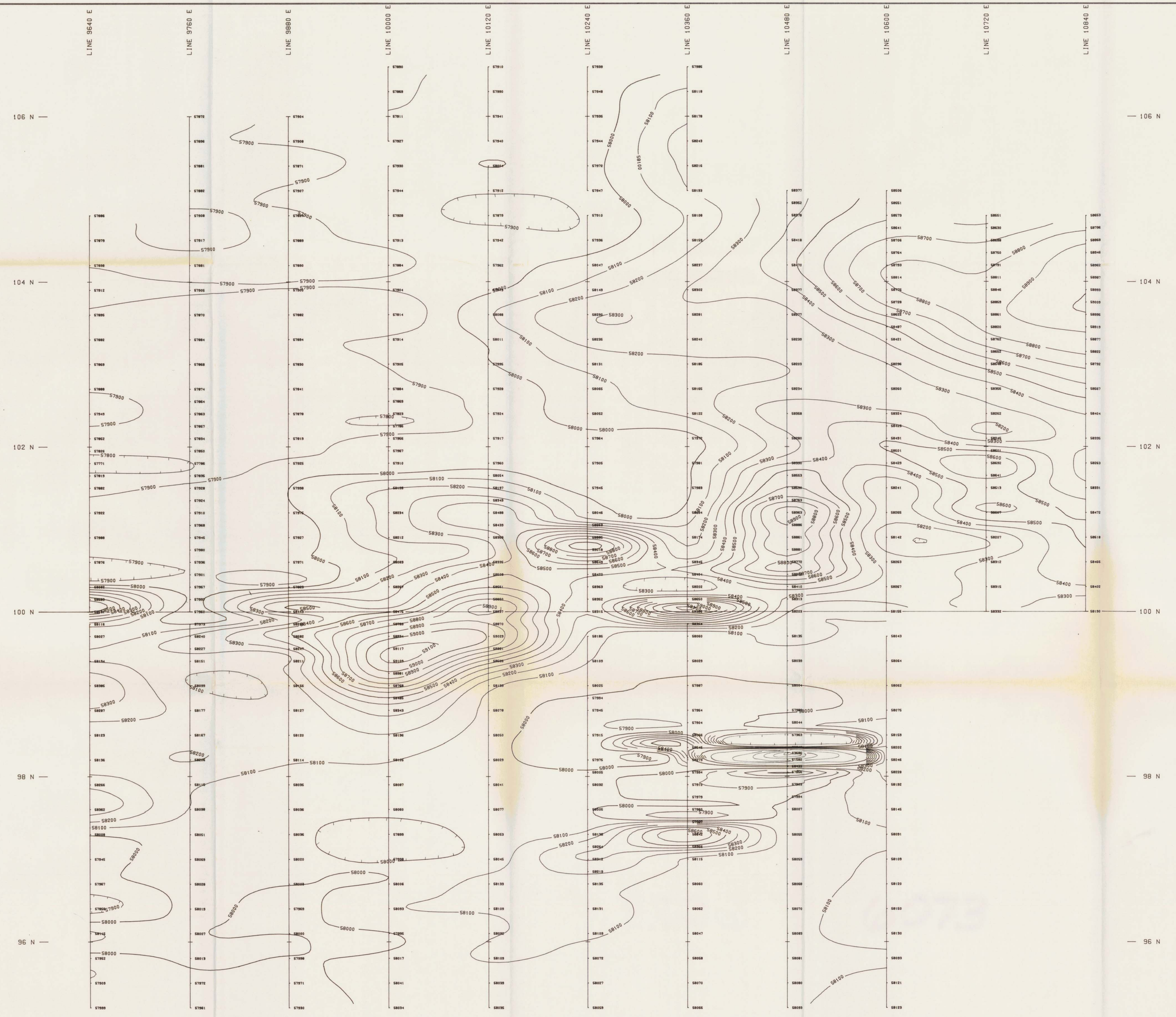
I.P. SURVEY (RESISTIVITY)

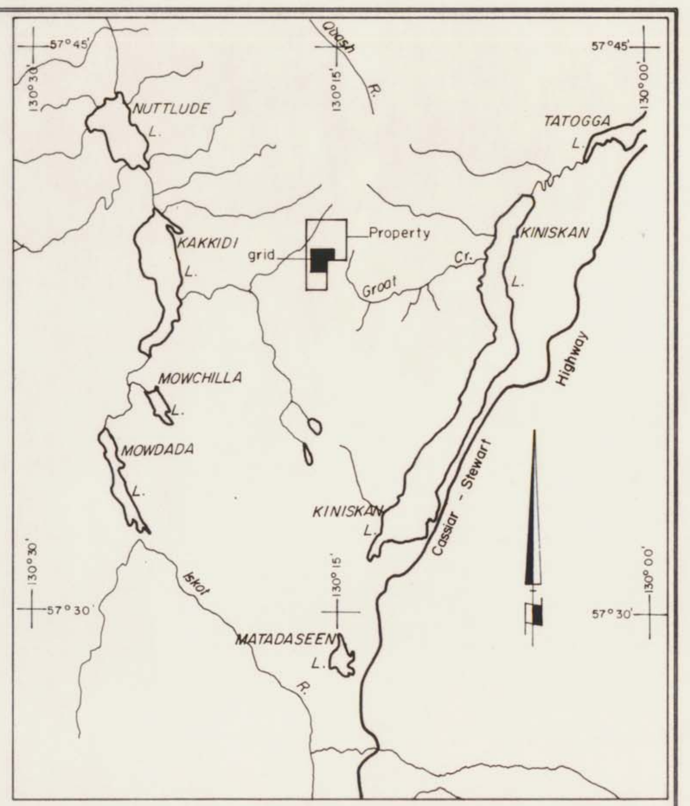
GROAT CREEK CLAIMS

NTS: 104G9 PROJ. #989

WORK BY	DATE
D.A.L.	Nov. 1976

6073





KEY MAP

Scale

5 m

5 km

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 6073
MAP NO. #13

To Accompany
Report on Geological & Geophysical Surveys & Supporting Work
GROAT CREEK CLAIMS
Kinaskan Lake area, Liard Mining Division
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D.A. Donnelly, G.R. Peatfield & W.A. Gasteiger

LEGEND

INSTRUMENT : GEOMETRICS G816
TYPE : PROTON PRECESSION. TOTAL FIELD
READINGS IN GAMMAS

6073

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

Fig. 8

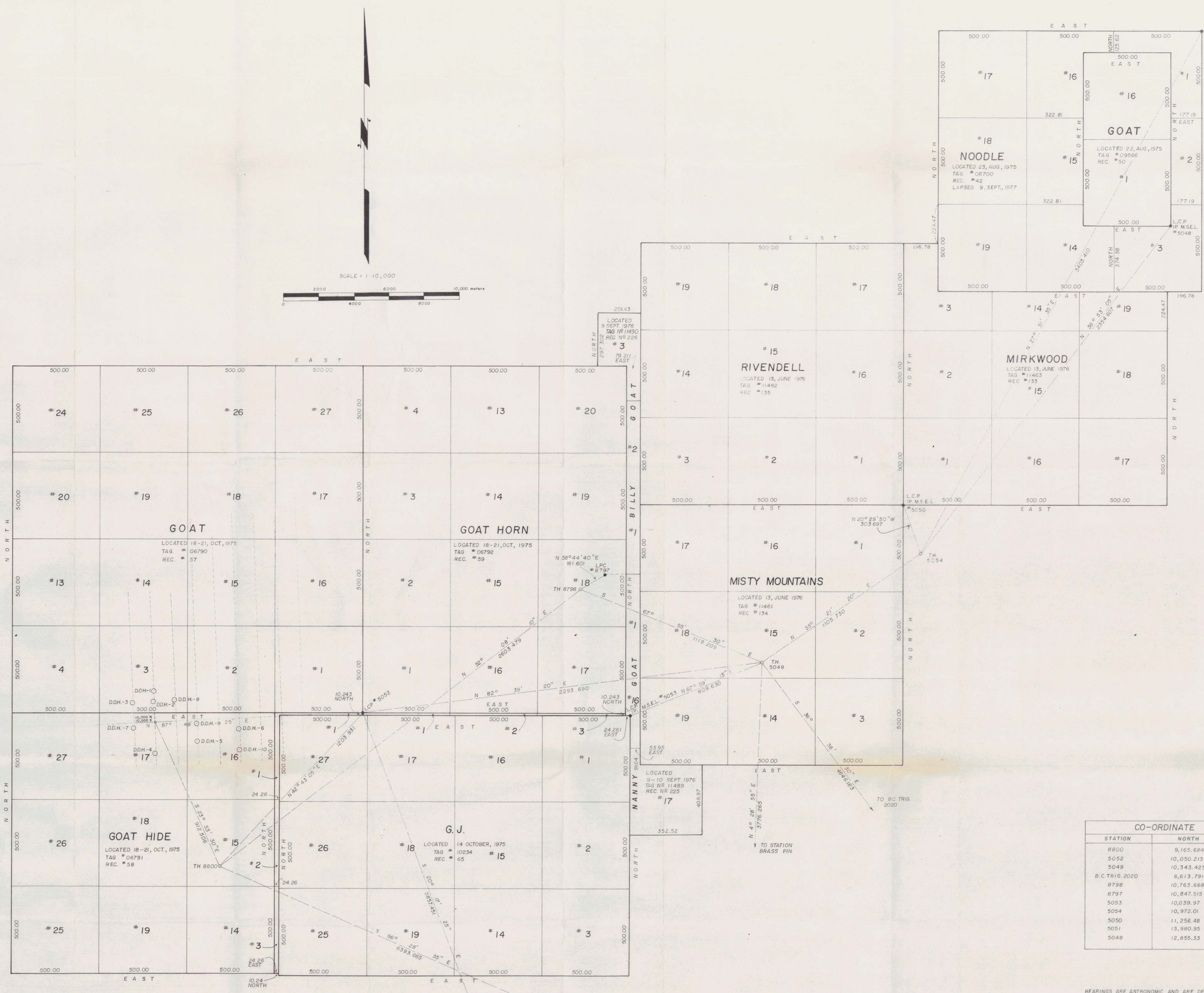
TEXASGULF INC.

MAGNETIC SURVEY

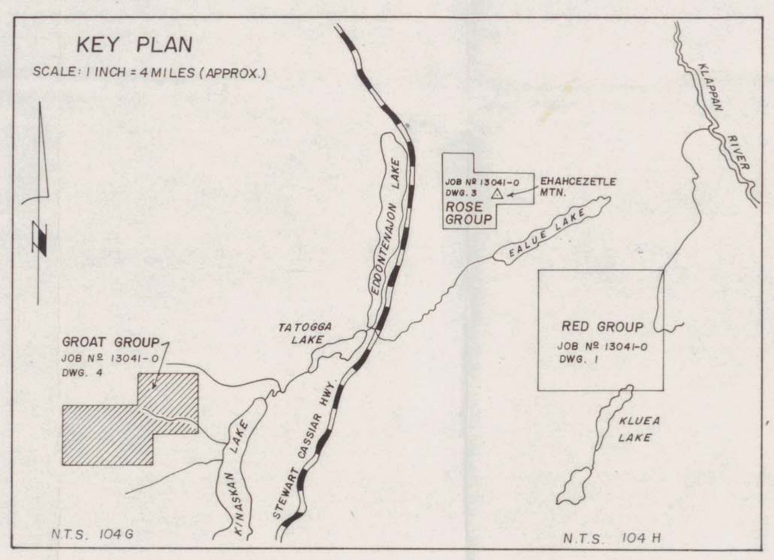
GROAT CREEK CLAIMS

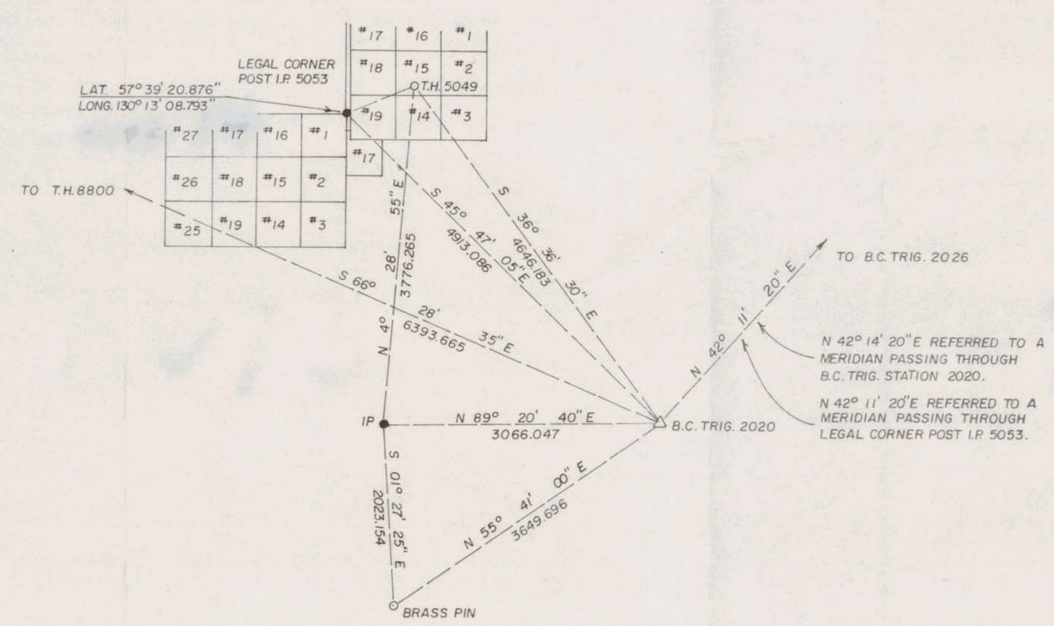
NTS:104G9 PROJ.#989

WORK BY	DATE
D.A.L.	Nov. 1976



DRILL HOLE CO-ORDINATE TABLE			
DRILL HOLE No	NORTH	EAST	ELEVATION
D.D.H. 1	10,181.2	9,999.3	1513.7
D.D.H. 2	10,121.6	9,995.2	1512.9
D.D.H. 3	10,119.29	9,874.82	1491.9
D.D.H. 4	9,821.3	10,007.0	1513.6
D.D.H. 5	9,890.6	10,244.0	1543.9
D.D.H. 6	9,961.1	10,482.2	1566.9
D.D.H. 7	9,963.3	9,880.6	1502.0
D.D.H. 8	10,127.6	10,115.2	1529.5
D.D.H. 9	9,988.7	10,240.3	1546.3
D.D.H. 10	9,839.3	10,486.9	1566.2





DETAIL OF BEARING ORIGIN

SCALE 1:50,000

CO-ORDINATE TABLE		
STATION	NORTH	EAST
8800	9,165.684	10,369.573
5052	10,050.213	11,186.309
5049	10,343.425	13,461.181
B.C.TRIG. 2020	6,613.791	16,231.893
8798	10,763.668	12,424.944
8797	10,847.515	12,563.091
5053	10,039.97	12,710.57
5054	10,972.01	14,370.86
5050	11,256.48	14,264.52
5051	13,980.95	15,961.30
5048	12,855.33	15,784.11

BEARINGS ARE ASTRONOMIC AND ARE DERIVED FROM B.C. TRIG. STATIONS 2020 AND 2026 AND ARE REFERRED TO A MERIDIAN PASSING THROUGH L.C.P. 5053.

CO-ORDINATES ARE METRIC AND DERIVED FROM AN ASSIGNED VALUE OF 10,000 N AND 10,000 E AT MINING GRID CO-ORDINATE ORIGIN.

DISTANCES ARE MEASURED WITH ELECTRONIC DISTANCE MEASURING HEWLETT-PACKARD 3800 A.

LEGEND

- ● IP M.S.E.L. 5052 DENOTES IRON POST AND NUMBERED IDENTIFICATION TAG SET
- ○ L.C.P. DENOTES LEGAL CORNER POST
- ⊙ T.H. DENOTES TRAVERSE HUB

DISTANCES ARE IN METERS AND DECIMALS THEREOF

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map 14

NOTE :- THIS DRAWING SUPERCEDES Mc ASSOC. DWG № 13041-0-4 DATED OCT. 1976 OF WHICH ALL COPIES SHOULD BE DESTROYED.

6073

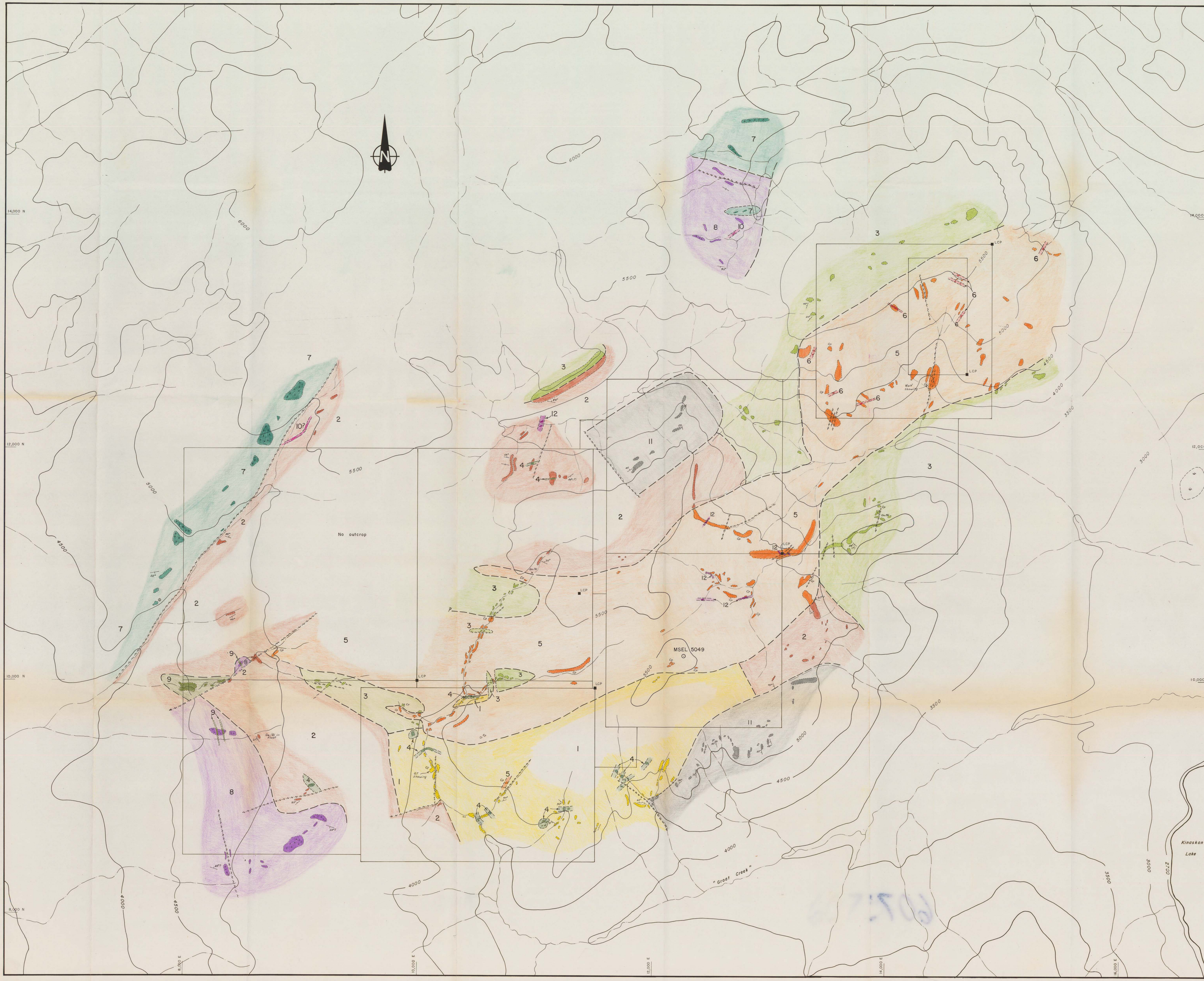
REV NO	DATE	REVISION	DR.	CH.	APP.

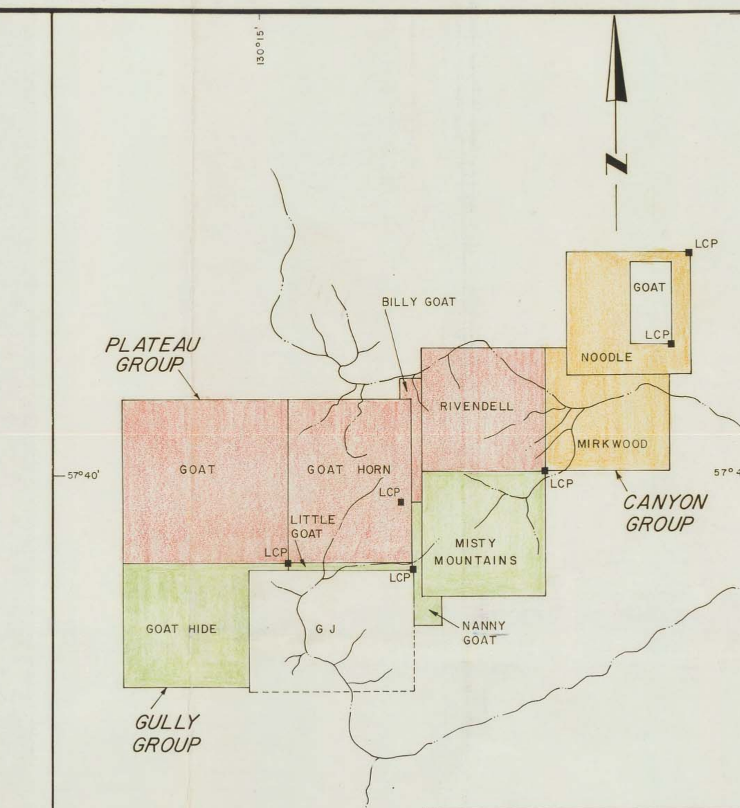
TEXASGULF INC.-KINASKAN LAKE

LOCATION LINE SURVEY OF GROAT MINERAL CLAIMS
LAIRD MINING DIVISION - BRITISH COLUMBIA.

McELHANNEY ASSOCIATES
PROFESSIONAL LAND SURVEYORS
Vancouver, B.C.

DESIGNED W.L.K.	SCALES HOR: 1:10,000 metres VERT:
DRAWN H.P.	
CHECKED W.L.K.	DATE SEPTEMBER, 1977
APPROVED J.W.P.M.	JOB NO. 13041-4
CLIENT DWG. NO.	McASSOC. DWG. NO. 13041-0-6 REV.





Texasgulf, Inc.

Fig. 2

CLAIM GROUPING SKETCH

GROAT CREEK CLAIMS

104 G/9		Proj. 989
WORK BY	DRAWN BY	DATE
G.R.P.	E.R.	OCTOBER, 1976

LEGEND

Tertiary? or older

- 12 — Dark brown to green basic dykes

Upper Triassic? or younger

- 11 — Grey, medium to fine grained interbedded wackes and siltstones, conglomerate and minor argillite
- 10 — Feldspar-hornblende porphyry dykes

Upper Triassic

- 9 — Dark green augite andesite (includes dykes)
- 8 — Maroon tuff-breccia; includes feldspar crystal tuffs, lapilli tuffs and coarse volcanic breccias
- 7 — Green tuff-breccia; includes poorly sorted lapilli tuffs, volcanic breccias and minor conglomerate lenses

Intrusives

- 6 — Feldspar porphyry dykes
- 5 — Hornblende monzonite to monzodiorite
- 4 — Augite trachyandesite dykes

- 3 — Volcaniclastics, tuffaceous wacke, tuff, augite porphyry "flows", and minor argillite
- 2 — Lithic wackes, siltstones, black argillite and greywacke
- 1 — Siliceous siltstone, siliceous argillite, chert (?) and tuff

SYMBOLS

- 75° Strike and dip of bedding
- Vertical bedding
- Horizontal bedding
- Fault inferred
- Outcrop
- Geologic contact inferred

Mineral occurrences

- Cp chalcopyrite
- Gn galena
- Sl sphalerite

NOTES:

1) MSEL 5049 is a McElhanney Surveying and Engineering Ltd survey point, see survey map

2) Base map derived from published 1:50,000 topographic sheets 104G/9E & W; elevations are in feet

3) Co-ordinates refer to MSEL survey

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Texasgulf Inc.

Fig. 4

GEOLOGY MAP

GROAT CREEK CLAIMS

104G/9			
WORK BY	DRAWN BY	DATE	DRW,G NO.
D.A.D.	E.R.	NOV. 1976	

0 100 200 400 600 800 1,000
Scale in Metres 1:10,000