

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

NO. 5859 MAP. X

# 5859

REPORT ON GEOPHYSICAL SURVEYS

&

SUPPORTING WORK

by

W.A. Gasteiger - Geophysicist

&

G.R. Peatfield - P. Eng.

on the  
RED GULCH GROUP

Jungle 101 M.C.  
Texasgulf Canada Ltd.

&

Red Gulch, Queen, Sulphide No. 5 - Sulphide No. 8 incl.,  
Sulphide No. 11, Sulphide No. 13, S. No. 1 Fr. (Crown  
Granted Mineral Claims)  
Texasgulf, Inc.

Situated on the Ecstall River

in the Skeena Mining Division

53°52'N 129°31'W  
N.T.S. 103 H/13E

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## INTRODUCTION

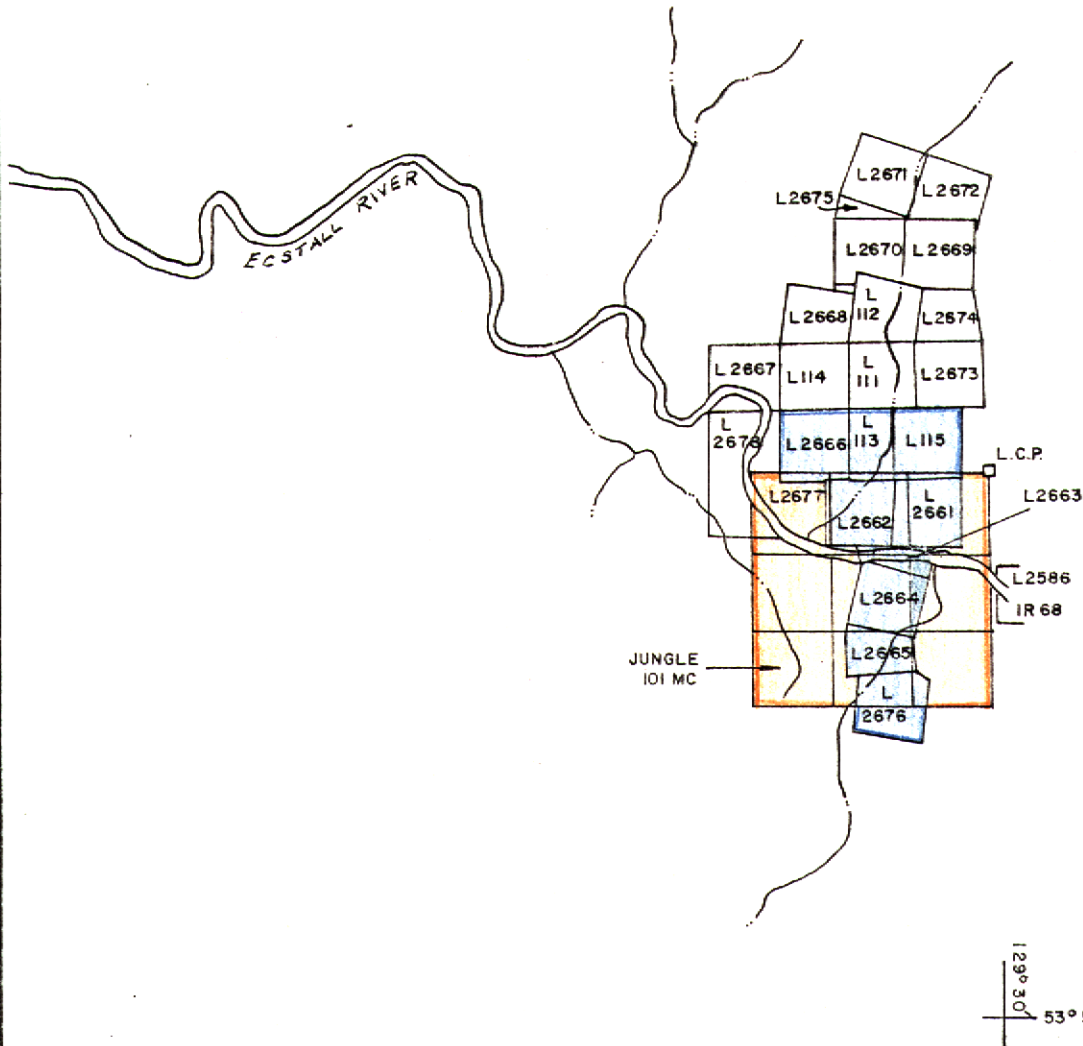
The RED GULCH Group is part of the Ecstall River Mine Property, presently held by Texasgulf, Inc. (21 Crown Granted Mineral Claims) and its subsidiary Texasgulf Canada Ltd. (1 located claim of 9 units).

The property has a long history of exploration, principally as a pyrites reserve, by various interests since its discovery in 1900. Texasgulf Sulphur Co. (now Texasgulf, Inc.) acquired the property in 1937, and has explored the ground at sporadic intervals since that time. For a good summary of early work and a description of the geologic setting, see the B.C. Minister of Mines Annual Report for 1952, pp. 81-84.

The present programme involved the cutting of some 16.8 km of geophysical grid, and a horizontal loop e.m. survey over most of the grid. All physical work was undertaken between June 23 and July 21, 1975.



53° 55'  
129° 30'



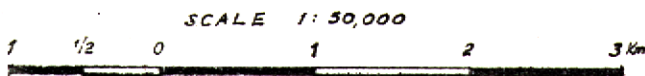
*[Handwritten Signature]*

129° 30'  
53° 50'

Texasgulf Canada Ltd

Fig. 1

LOCATION MAP  
ECSTALL RIVER MINE  
103H/13E



WORK BY	DRAWN BY	DATE
G.R.P.	E. Rogan	November, 28, 1975

### LOCATION, ACCESS & TERRAIN

The property is located astride the Ecstall River, some 69 km SE of Prince Rupert (Fig. 1). Access is by helicopter from Prince Rupert or, with some difficulty, by boat up the Ecstall River.

Terrain on the property is, generally speaking, very rugged. However, the present work programme was concentrated on the river flats and the relatively high line-cutting costs are a function of swampy ground, heavy timber and very thick undergrowth.

### LINE-CUTTING PROGRAMME

In order to provide control for subsequent geophysical surveys, a grid was established, as shown on Fig. 2.

The line-cutting was undertaken under contract by Manex Mining Ltd., who supplied a five-man crew headed by M.J. Beley, president of Manex.

### GEOPHYSICAL SURVEY

A horizontal loop e.m. survey was performed under the direction of W.A. Gasteiger, Texasgulf Geophysicist, whose report is included as an Appendix.



G.R. Peatfield, P.Eng.

APPENDIX A

Geophysical Report by W.A. Gasteiger

TEXASGULF CANADA LIMITED  
REPORT ON GEOPHYSICAL WORK  
ECSTALL RIVER PROJECT

January 15, 1976

W. A. GASTEIGER



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TEXASGULF CANADA LIMITED  
REPORT ON GEOPHYSICAL WORK  
ECSTALL RIVER PROJECT

1. INTRODUCTION:

A geophysical survey consisting of horizontal loop electromagnetic traverses was performed over a group of newly staked claims adjoining the patented claims of the old Ecstall River Mine in the Prince Rupert district of British Columbia.

Work on the claim group commenced July 14th., and ended on July 20, 1975.

2. PREVIOUS WORK:

Previous work consisted of vertical loop electromagnetic surveys by McPhar Geophysics for Texas Gulf Sulphur Company. These surveys were done at a number of frequencies and several anomalous responses were discovered. This work took place in the summers of 1957 and 1958. The present survey attempted to relocate these conductors.

In 1937, Hans Lundberg produced a resistivity survey of the area. Directly to the north of the present survey area lies the Ecstall River Mine on which a great deal of drilling and development work has been done in the past.

### 3. SURVEY DETAILS:

Because most of the survey area lay in the flat valley of the Ecstall River, a horizontal loop E.M. unit was utilized. Line 10840N at the north end of the grid was not surveyed because of the rugged terrain. Similarly, other lines were omitted or cut short due to a variety of factors - wet conditions, rugged terrain, or coil misorientation resulting from wandering lines.

Lines were cut in an E-W direction at 120 metre intervals. Readings were taken at 40 metre stations.

### 4. SURVEY RESULTS:

The present survey indicates no conductive responses. Since the previous vertical loop work by McPhar indicated several responses, either the present survey didn't penetrate deeply enough to pick up the conductive zones or the McPhar surveys detected conductors that were caused by conductive overburden or misorientation effects.

The McPhar results indicate crossovers of moderate amplitude at 5000 Hz; however, these crossovers are almost indistinguishable at 1000 Hz. The present survey was read at 1600 Hz; this is probably the reason for the lack of any anomalous readings.

The poor conductivity indicated by the McPhar survey means that most of the vertical loop crossovers could be due to conductive overburden. To the north of the Ecstall River, the present survey shows a gradual

APPENDIX B

Statements of Qualifications

change in the background of the in phase component. On all lines the in phase readings rise gradually from east to west. This indicates an increase in overburden conductivity towards the west.

One of McPhar's better conductive zones was parallel to Red Gulch Creek from approximately 10720N to 10360N. The present survey indicates a weak anomalous deflection on line 10360N in the vicinity of 9700E. This is in the general location of the McPhar conductor. Here again the profile seems more like a conductive overburden edge effect than a legitimate bedrock conductor.

#### 5. RECOMMENDATIONS:

The lack of response from the present E.M. survey and the poor conductivities detected by the McPhar survey indicate that further electromagnetic work is not warranted.

The area near Red Gulch River could use more geophysical work; however, more E.M. work would not resolve the question whether this weak response is a poorly conducting sulphide zone. A few induced polarization traverses over this area could settle the question once and for all. A seismic refraction profile along Line 10360N might also be warranted to get a good estimate of the overburden depth in this area.

*Wm. Gastique*



Statement of Qualifications, - R. Lowe

Richard Lowe has recently completed third year applied geophysics at Queen's University, Kingston. He was employed by Texasgulf as a geophysical assistant for the 1975 field season, and was regarded by his supervisors as a keen, competent and conscientious employee.



G.R. Peatfield, P.Eng.

APPENDIX C

Statement of Expenditures



APPENDIX C

Statement of Expenditures

Line-Cutting Costs Billed by Manex Mining Ltd.

13 man days @ \$50.00	\$	650.00	
39 man days @ \$45.00		<u>1755.00</u>	
		2405.00	
payroll overhead @ 11.55%		<u>277.78</u>	
		2682.78	
overhead @ 15%		<u>402.42</u>	
		3085.19	
8 man days @ \$125.00		<u>1000.00</u>	
		4085.19	\$ 4,085.19

Salaries & Fringe Benefits - Texasgulf Inc.

G.R. Peatfield, P.Eng. Report 2 1/2 days @ \$110.00		275.00	
W.A. Gasteiger - Geophysicist July 14-20, 7 days @ \$65.00		455.00	
R. Lowe - Geophysical Asst. July 14-20, 7 days @ \$30.00		<u>210.00</u>	
		940.00	\$ 940.00

Report Preparation

Draughting, secretarial, reproduction, etc.	200.00	\$	200.00
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Room & Board

Line-cutters - 60 man days @ \$15.00	\$	900.00	
Geophysicists - 14 man days @ \$15.00		<u>210.00</u>	
		1110.00	\$ 1,110.00

Aircraft Support (Mob, Demob, Supply)

Bell 206 B charter 6 hrs. @ \$292.25		1753.50	
Fixed-wing charter		<u>352.82</u>	
		2106.32	\$ 2,106.32

Travel, Shipping, Etc.

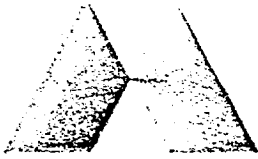
Travel		155.15	
Shipping		100.00	
Auto Expense		50.00	
Equip. per Manex, where applic.		298.34	
Equip. per geophysicists		250.00	
Communications		<u>25.00</u>	
		878.49	\$ <u>878.49</u>
			\$ <u>9,320.00</u>

notes:

- 1.) total man-days from Manex invoice are not used as some time refers to claim staking.
- 2.) a per diem calculation is used for room and board because some grocery charges are included in other Manex invoices for other projects.



G.R. Peatfield, P.Eng.



## MANEX MINING LTD.

227 - 470 GRANVILLE STREET, VANCOUVER 2, B.C. • 681-4411

July 7th, 1975

Texasgulf Inc.,  
1281 West Georgia Street,  
VANCOUVER, B.C.

Re: Ecstall Project.

WAGES

D. Beley	15 7/8 days at \$45.00 per day	\$ 714.34
R. Barclay	15 1/4 days at \$50.00 per day	762.50
B. Schultz	15 3/4 days at \$45.00 per day	708.75
J. van der Ark	15 3/4 days at \$45.00 per day	708.75
		<hr/>
		\$2,894.34
	Payroll overhead 11.55%	334.30

DISBURSEMENTS

Eby & Sons	\$368.07	
T.P.A.	<u>247.50</u>	615.57
		<hr/>
		\$3,844.21
	Overhead 15%	576.63
		<hr/>
		\$4,420.84

GEOLOGIST

M.J. Beley	1 day at \$95.00 per day	95.00
M.J. Beley	11 days at \$125.00 per day	1,375.00

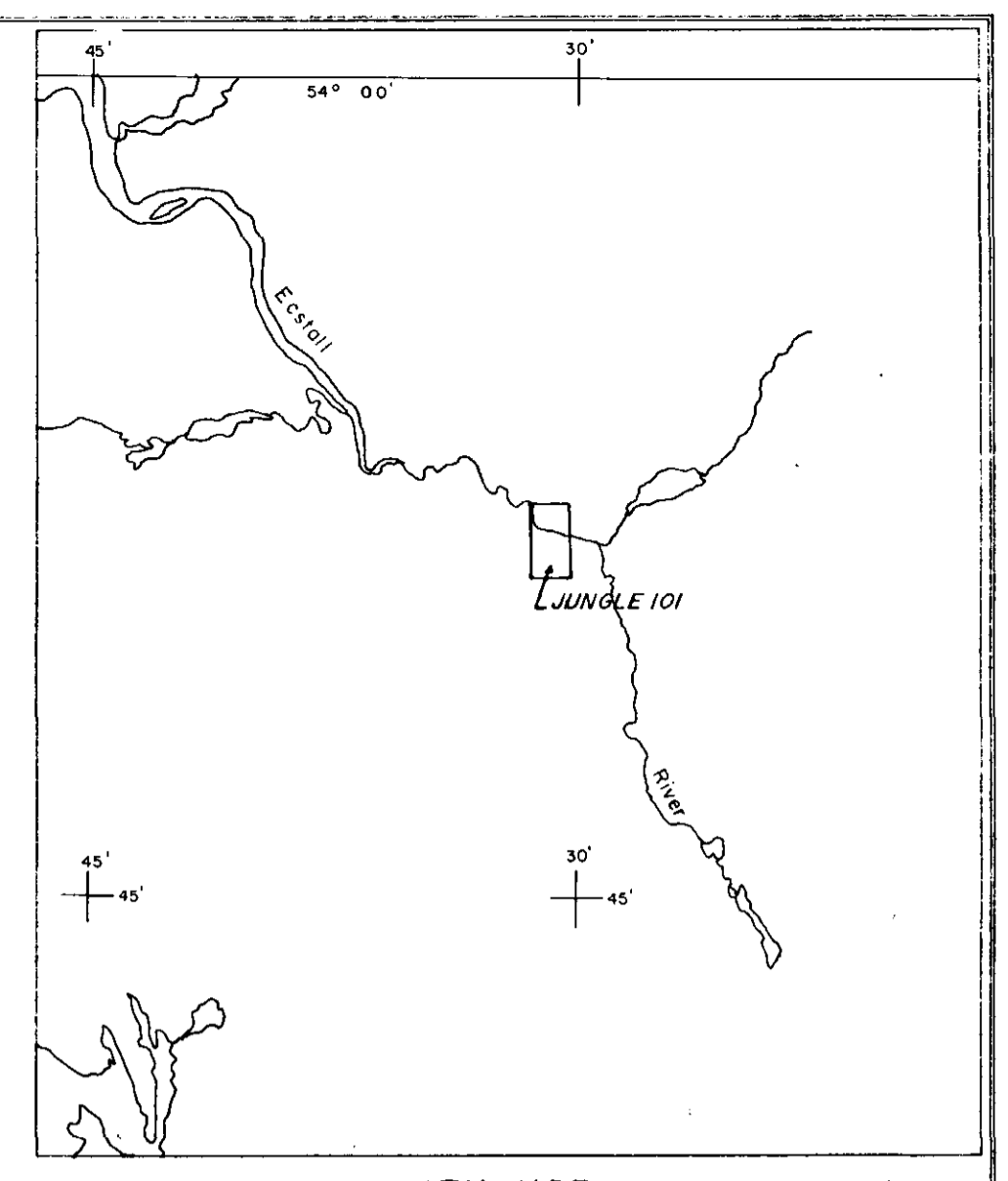
EQUIPMENT SUPPLIED

Truck	1/3 month at \$500.00 per month	166.67
Powersaws (3)	1/3 month at \$125.00 per month	125.00
Topofils (2)	10 days at \$2.00 per day	40.00
Radio Telephone	1/3 month at \$200.00 per month	66.67
Misc. equipment	1/3 month at \$200.00 per month	66.67
Camp	1/3 month at \$300.00 per month	100.00
		<hr/>
		\$6,455.85

This is our Account,  
MANEX MINING LTD.

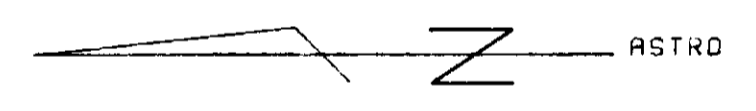
Per: *J. H. ...*



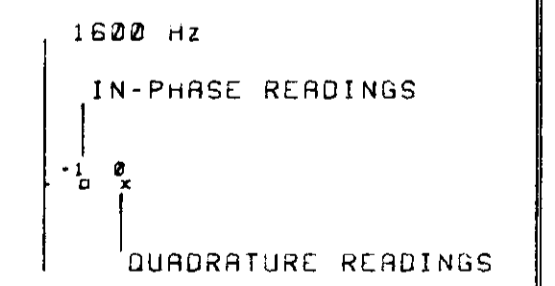


Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 5859 MAP 3

to accompany  
Report on Geophysical Survey  
& Supporting Work  
RED GULCH GROUP  
Ecstall River - Skeena H.D.  
by  
W.A. Gasteiger & G.R. Peatfield



LEGEND



INSTRUMENT : GEONICS EM 17  
FREQUENCY : 1600 Hz  
COIL SPACING : 300 FEET  
PROFILE SCALE : 1" = 20%

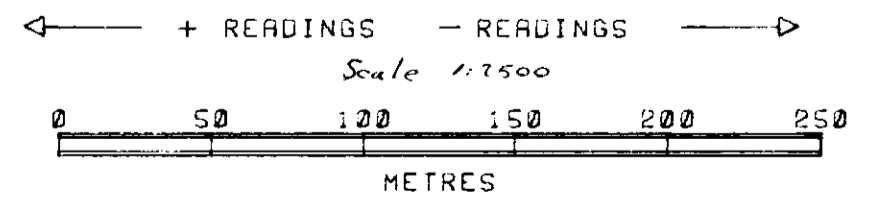


Fig. 3

5859  
M-3

TEXASGULF CANADA LTD.	
HORIZONTAL LOOP SURVEY	
ECSTALL RIVER PROJECT	
WORK BY Gasteiger & Lowe	DATE July 1975