

984

GEOCHEMICAL REPORT

X - GROUP

OSOYOOS-SIMILKAMEEN MINING DIVISIONS

BRITISH COLUMBIA

Vancouver, B.C.
May 2, 1967

George L. Mill, P. Eng.

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Attached Envelope Contains:

1. Map showing Initial Geochemical Survey
2. Map showing Anomalous Area

LOCATION

The "X" Group of mineral claims is located approximately four (4) miles south of Thirsk, a hamlet on the Kettle Valley line of the Canadian Pacific Railway. It is accessible by secondary road up the Trout Creek Valley from West Summerland, a distance of sixteen (16) miles. This secondary road parallels the rail line to Princeton which makes access to the claims available from either direction.

Access to the most easterly portion of the Group from this secondary road was greatly simplified by cleaning out and extending abandoned logging roads.

PROPERTY

The "X" Group comprises fifty (50) mineral claims. Its north-easterly corner straddles the dividing line between the Osoyoos and Similkameen Mining Division. Of the Group, the following forty (40) claims lie within the Osoyoos Mining Division:

X-31 to X-56	-	Record Nos. 14674 - 99
X-59 to X-72	-	Record Nos. 14700 - 13

The remaining ten (10) claims lie within the boundary of the Similkameen Mining Division. They are:

X-57 and X-58	-	Record Nos. 17749- 50
X-73 to X-80	-	Record Nos. 17751 - 58

Cont'd.

Property - cont'd.

For assessment purposes, grouping was done as follows:

Group I - X-35 to X-50, X-57 to X-80
Group II - X-31 to X-34, X-51 to X-56

INITIAL GEOCHEMICAL PROGRAM

Following acquisition of the Group by Lodestar Mines Ltd. (NPL), a preliminary geochemical program was initiated. This work was done under contract to, and under the supervision of, Joseph Paradis of Room 628 - 510 West Hastings Street, Vancouver, B.C. Mr. Paradis was considered to have the necessary qualifications to undertake and supervise this program, having been active in prospecting and various phases of exploratory work, both under qualified engineers and on his own account for some twenty years.

This initial program called for line-cutting, primarily along the NE-SW location lines, flagging at 100-foot intervals with subsequent soil sampling at flag locations. Lines cut, sample locations and copper content of each sample in parts per million appear on the enclosed map entitled "Initial Geochemical Survey".

Analyses were done by T.S.L. Laboratories Limited in their Vancouver laboratory. This preliminary soil sampling disclosed one section, lying along the most easterly location line, which showed continuity well above "background" as to copper content. This section lies primarily along the line between Claims X-35 and X-36.

When the results of this preliminary survey were brought to

Cont'd.

Initial Geochemical Program - cont'd.

the attention of the writer, it was recommended that, using this location line as a base or center line, a grid be established over four (4) claim lengths and two (2) claim widths. This project was undertaken by Lodestar Mines Ltd. (N.P.L.) during the first half of September, again under contract to Mr. Paradis but under the general supervision of the undersigned.

DEVELOPMENT OF ANOMALOUS AREA

Using the location line as a base line, four (4) lines were cut on either side and parallel to it. These lines were cut at 300-foot intervals and extend from the northern boundary of Claims X-31 and X-32 to approximately the southern boundary of Claims X-37 and X-38.

These lines were picketed at 100-foot intervals and soil samples taken at picket locations at an average depth of 10 to 12 inches by means of a spade. The samples were enclosed in Kraft bags and forwarded to T.S.L. Laboratories Limited in Vancouver for analysis. They were first analyzed for copper content and later for molybdenum content. Results disclosed an anomalous area (copper) the general outline of which is indicated on the enclosed map. Copper determinations were made by the hot nitric acid - atomic absorption method and molybdenum determinations by the hot hydrochloric acid-dithiol method.

Cont'd.

CONCLUSIONS AND RECOMMENDATIONS

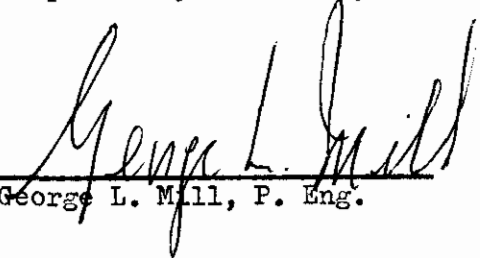
While the average copper content of the samples taken within the indicated anomalous area is of interest subsequent work, though limited in extent, has failed to disclose any indication as to the source of this copper.

Topography would indicate soil movement, if any, to tend northerly to north-easterly. However, outcroppings south and south-west of the anomalous area show very minor chalcopyrite and pyrite mineralization and that at very infrequent locations.

On the possible assumption that the anomalous area overlies a mineralized zone, a series of bulldozer trenches were cut at strategic locations within the area. However, overburden conditions were more severe than anticipated and true bedrock was not reached even at depths of over twenty (20) feet.

Rather than to enter upon a costly stripping program, the writer has recommended that a geophysical survey be conducted at least over the eastern portion of the Group.

Respectfully submitted,


George L. Mill, P. Eng.

T S L

Laboratories Limited

325 HOWE STREET - VANCOUVER 1, B.C.

TELEPHONE 684-1374

ASSAYERS
CHEMISTS
GEOCHEMISTS

C
H
A
R
G
E
T
O

LODESTAR MINES
#303 - 540 Burrard Street,
Vancouver 1, B.C.

INVOICE NUMBER

0744

SHIPPED TO:

DATE:	REFERENCE No.:	YOUR ORDER No.:		
Sept. 21/66	V - 956			
SHIPPED:	VIA:	TERMS: NET 30 DAYS	UNIT PRICE	TOTAL
To:	513 soils for Cu only plus sample preparation charge		513.00 102.60	\$615.60
		<i>Paid Nov 2/66 625.20</i>		

INVOICE

To accompany affidavit re Geochemical Report by
George L. Mell, P. Eng., on "X" Group, 4 miles
South of Thirst (49° 120' N.E.), Osayooos -
Smilkaamen M. P., dated May 2, 1967

T S L

Laboratories Limited

325 HOWE STREET - VANCOUVER 1, B.C.

TELEPHONE 684-1374

ASSAYERS
CHEMISTS
GEOCHEMISTS

CHARGE TO

LODESTAR MINES LIMITED
#303 - 540 Burrard Street,
Vancouver 1, B.C.

INVOICE NUMBER

0820

SHIPPED TO:

X Group. Buntala.

DATE:	REFERENCE NO.:	YOUR ORDER NO.:		
SHIPPED:	VIA:	TERMS: NET 30 DAYS	UNIT PRICE	TOTAL
Sept. 29/66	V - 956			
To:	513 soils for Mo			\$513.00
			<i>Paid - October 19/66 #0782.</i>	

INVOICE

To accompany affidavit re Geochemical Report by
George L. Mill, P. Eng., on "X" Group, 4-miles South
of Thirst (49° 120' N.E.), Osayooos-Simelkamen
M.D. dated May 2, 1967

T S L

Laboratories Limited

325 HOWE STREET - VANCOUVER 1, B.C.

TELEPHONE 684-1374

ASSAYERS
CHEMISTS
GEOCHEMISTS

CHARGE TO

LODESTAR MINES LIMITED
540 Burrard Street,
Vancouver 1, B.C.

INVOICE NUMBER

0429B

SHIPPED TO:

DATE:	REFERENCE NO.:	YOUR ORDER NO.:		
Aug. 15/66	V 856			
SHIPPED:	VIA:	TERMS: NET 30 DAYS	UNIT PRICE	TOTAL
To	392 soil samples for Cu Plus sample preparation charge			\$470.40
	marked: X - Group BRENDA AREA			

PAID
THANK YOU
Aug 17
Per [Signature]

INVOICE

To accompany affidavit re Geochemical Report by George
L. Mill, P. Eng., on "X" Group, 4 miles South of
Thursk (49°12'0"N.E.), Osageos-Smitkamen M.D.
dated May 2, 1967

Vancouver, B.C.
November 5, 1966

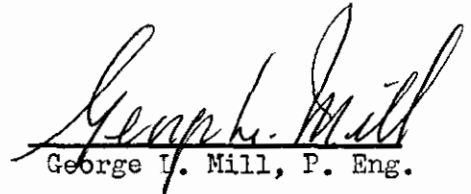
LODESTAR MINES LTD. (N.P.L.)
IN ACCOUNT WITH
GEORGE L. MILL, P. ENG.

TO: PROFESSIONAL SERVICES

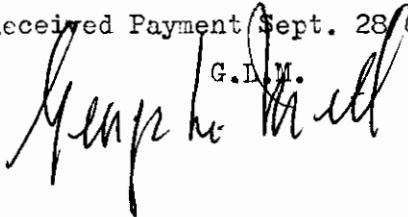
Re: Supervision of Soil Sampling Lines "A" to "H",

"X" Group, Osoyoos Mining Division - August 18th

to 21st, 1966..... \$ 300.00


George L. Mill, P. Eng.

Received Payment Sept. 28/66.


G.L.M.

To accompany affidavit re Geochemical Report by George
L. Mill, P. Eng., on "X" Group, 4 miles South of
Thursk (49°120' N.E), Osoyoos - Smelkameen M.P.
dated May 2, 1967.

IMPERIAL EXPLORATIONS CO., LTD.

327 - 510 WEST HASTINGS ST. • VANCOUVER 2, B.C., CANADA

September 19, 1966

IN ACCOUNT WITH:

Lodestar Mines Ltd. (N.P.L.)
303 - 540 Burrard Street,
Vancouver, B.C.

"X" GROUP - BRENDA AREA

For cutting and soil sampling lines:

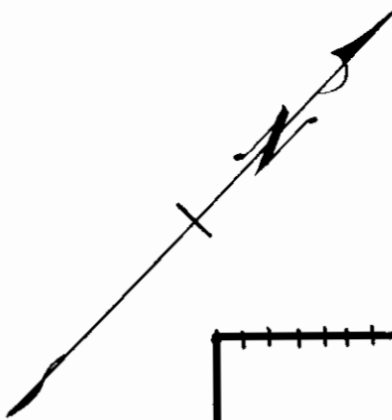
16 miles line cutting @ \$100.00 per mile.....	\$1600.00
16 miles soil sampling @ \$50.00 per mile.....	<u>800.00</u>
	\$2400.00
	<u> </u>

PAYMENT RECEIVED IN FULL.


J. Paradis

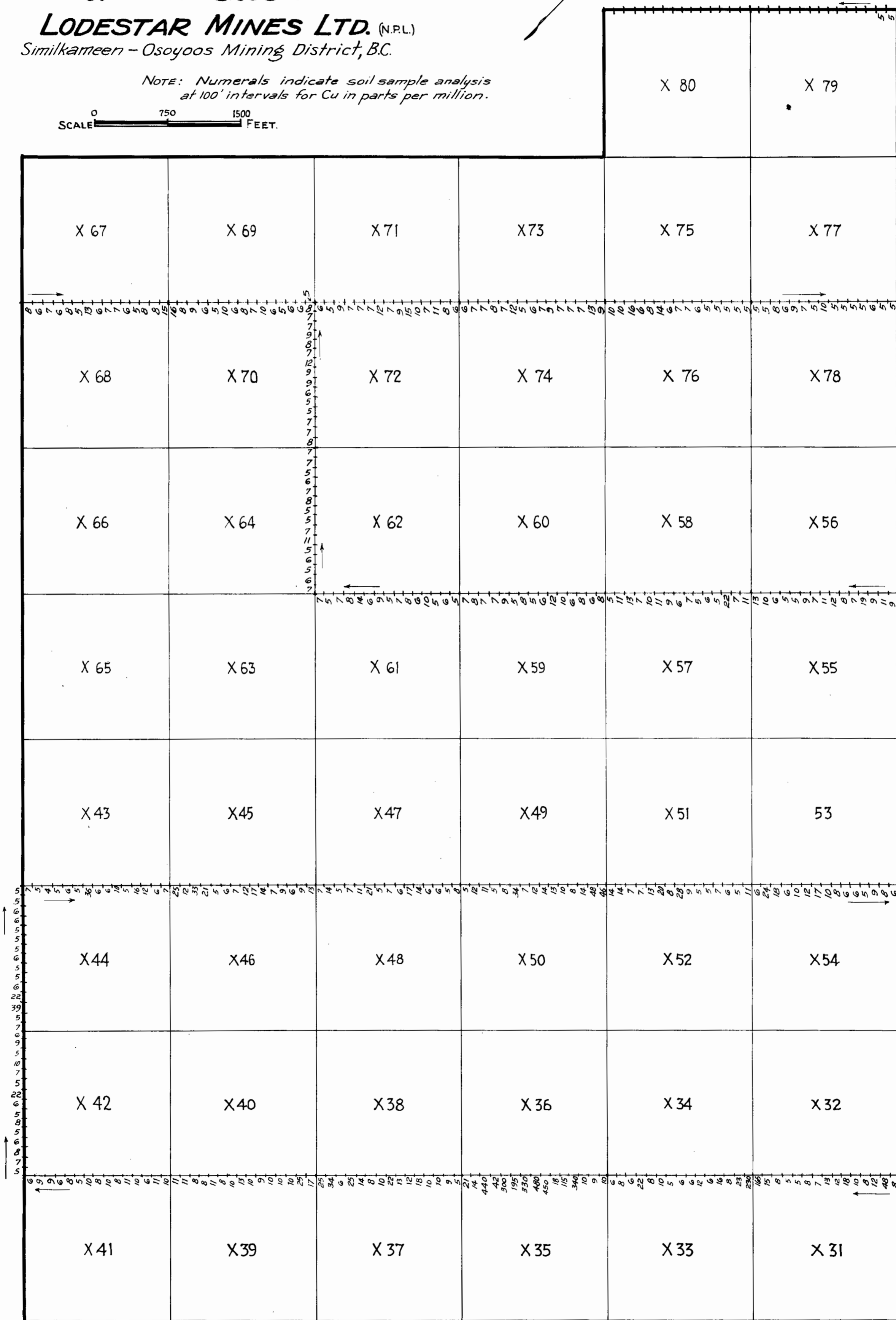
To accompany affidavit re geochemical report by
George L. Mull, P. Eng., on "X" Group, 4 miles South of
Thiisk (49° 120° N.E.), Osyoos-SimulKameen M.D.
dated May 2, 1967

INITIAL GEOCHEMICAL SURVEY ON X GROUP LODESTAR MINES LTD. (N.P.L.) Similkameen - Osoyoos Mining District, B.C.



NOTE: Numerals indicate soil sample analysis at 100' intervals for Cu in parts per million.

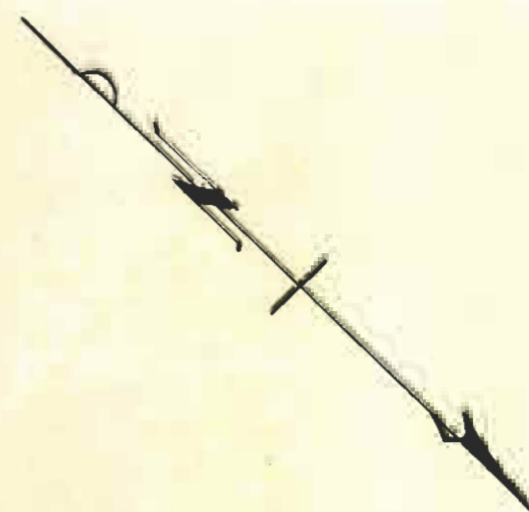
SCALE 0 750 1500 FEET.



984

To accompany GEOCHEMICAL REPORT BY
GEORGE L. MILL, P.ENG. ON "X" GROUP, 4 miles
South of Thirsk (49° 120' NE), Similkameen-
Osoyoos M.D. dated May 2, 1967

	X 37					X 38					
59+00					25						
58+00					34						
57+00					6						
56+00	7 <.5	10 <	11 .5	10 <.5	25	6 <	6 <	27 <	7 <.5		
55+00	5 <.5	7 <	12 <.5	7 .5	14	9 <.5	6 <	4 <	10 .5		
54+00	13 <.5	10 <	21 <	11 <.5	8	2 <.5	7 <	4 <	145 <.5		
53+00	9 .5	14 <	14 <.5	4 .5	10	10 .5	120 <.5	3 <	7 <		
52+00	7 .5	10 <	13 1	11 .5	22	220 <.5	6 .5	3 <	6 <		
51+00	4 .5	6 <	200 <.5	280 <.5	13	385 <.5	7 .5	7 <.5	3 <		
50+00	10 <.5	3 <	20 <	11 .5	12	12 .5	6 1	5 .5	3 <.5		
49+00	6 <	5 <	7 <.5	145 <.5	18	3 1	13 2	5 <.5	11 .5		
48+00	7 <.5	8 <.5	89 <.5	260 <	10	3 .5	3 1	8 1	9 .5		
47+00	20 .5	11 1	105 <	240 <	10	5 <.5	7 .5	5 <.5	5 <.5		
46+00	9 <.5	12 <.5	132 <	18 <	9	5 <	6 <.5	3 <	4 <		
45+00	10 .5	<.5	135 <	270 <	5	145 <	6 <.5	7 <	4 <		
44+00	X 35	5 <.5	15 <	17 <	40 <	21	X 36	9 <	8 .5	6 <	5 <.5
43+00	14 .5	9 <	6 <	280 <	14	27 <	3 <.5	9 <.5	5 <.5		
42+00	10 <.5	10 <.5	15 <	17 <	440	11 <	7 <	15 1	2 <		
41+00	7 <	11 .5	170 <	450	42	10 <	5 <	9 <.5	3 <		
40+00	10 <	4 <.5	108 <	360 <	300	5 <.5	4 <	12 <.5	12 <		
39+00	13 <	6 <	9 <	510 <	195	7 .5	7 <.5	7 <	9 <		
38+00	11 <	9 <	48 <	440 <	330	2 .5	16 .5	8 <	3 <		
37+00	12 <	5 <	10 <.5	105 <	480	1 7	14 .5	32 <	4 <		
36+00	8 <	6 <	4 1	110 <	150	2 2	8 .5	43 <	5 <		
35+00	9 <	26 <.5	64 <.5	400 <	18	7 .5	7 <.5	15 <	1 <.5		
34+00	6 <	9 .5	86 <	6 <	115	8 <.5	9 <	9 <	6 .5		
33+00	11 <	24 <.5	250 <	10 <	340	32 .5	6 <	8 <	128 <.5		
32+00	10 <	11 .5	78 <	215 <.5	10	3 <.5	4 <	15 <	4 .5		
31+00	4 <	12 <.5	16 <	13 <.5	9	7 <	1 <	3 <	3 <.5		
30+00	3 <	120 <	28 <	14 <	10	6 <	1 <	8 <	3 <		
29+00	X 33	11 <.5	17 <.5	200 <.5	400 <	6	X 34	7 <	5 <	7 <	3 <
28+00	12 .5	11 .5	24 <	5 <	8	6 <	5 <	12 <	2 <		
27+00	4 .5	12 <.5	38 <.5	11 <.5	6	4 <	8 <	13 <	5 <		
26+00	5 <.5	10 <.5	54 <	230 1	22	10 <	3 <	4 <	2 <		
25+00	10 .5	7 .5	15 <.5	9 <.5	8	105 <	3 <	4 <	10 <		
24+00	5 <.5	5 <.5	10 .5	11 <	10	3 <	4 <	2 <	3 <.5		
23+00	9 <.5	7 <	35 <.5	3 <	5	4 <	3 <	7 <	10 .5		
22+00	3 <.5	6 .5	12 <	6 <	6	11 <	2 <	3 <	2 <.5		
21+00	1 <	13 <.5	190 <	9 <	6	9 <.5	3 <	3 <.5	2 <		
20+00	4 <	14 <	220 <.5	3 <	12	3 .5	3 <	18 <.5	3 <		
19+00	5 <.5	220 <	4 .5	5 <	6	2 <.5	2 <	3 .5	15 <		
18+00	3 .5	9 <	6 1	3 <	16	3 <.5	4 <.5	11 <.5	2 <		
17+00	11 <.5	6 <	4 1	4 <.5	8	2 .5	3 <.5	2 <	4 <		
16+00	5 <	10 <	3 <.5	2 1	23	4 <.5	2 <.5	2 <	4 <		
15+00	2 <	9 <	7 <	3 <.5	230	5 <.5	2 .5	2 <	2 <.5		
14+00	X 31	8 <	11 <	7 <	4 <	165	X 32	7 <.5	2 <.5	6 <	2 .5
13+00	8 <	12 <	7 <	3 <	15	6 <.5	9 <.5	4 <	4 .5		
12+00	4 <	12 <	7 <	7 <.5	16	5 .5	6 .5	5 <	2 <.5		
11+00	4 <	12 <	13 <	12 <.5	5	8 <.5	20 <.5	5 <	5 <		
10+00	5 <	7 <	13 <	6 <	5	3 <	13 <.5	7 <	5 <		
9+00	3 <.5	7 <	8 <.5	5 <.5	8	5 <	11 1	4 <	8 <		
8+00	5 .5	9 <	8 <	7 .5	7	10 <	2 1	12 <	7 <		
7+00	6 <.5	11 <.5	10 <	6 .5	13	3 <	2 <.5	1 <	4 <		
6+00	8 <	12 1	11 <	10 <.5	12	9 <	5 <	3 <	9 <		
5+00	4 <	11 <.5	13 <	4 <	18	7 <	5 <	3 <	5 <		
4+00	5 <	10 <	8 <	3 <	10	14 <	2 <	8 <	4 <.5		
3+00	9 <.5	14 <.5	6 <	11 <	8	12 <	5 <.5	5 .5	4 <.5		
2+00	6 <.5	95 1	10 <.5	3 <	12	7 <	4 .5	7 .5	3 <		
1+00	7 1	11 <.5	10 .5	9 <	48	3 <	1 <.5	4 <.5	3 <		
0+00	7 <.5	12 <.5	10 <.5	6 <.5	8	3 <	1 <	5 <.5	3 <		
	A	B	C	D	BASE LINE	E	F	G	H		



LEGEND		PITS SHOWN TO SCALE
Grids	300' intervals	300' intervals
Picket Lines	300' intervals	
ACCESS	Roads BUILT	
Claim Lines		

NOTE:
 Cu Determinations on LEFT SIDE OF LINES
 No determinations on RIGHT SIDE OF LINES

To accompany Geochemical Report by
 George L. Mott P. ENG., on "X" Group,
 4 miles South of Thibault (49° 12' 00" N.E.)
 Osageos-Smolokamen M.D. dated May 2/67

Plan showing
**GEOCHEMICAL
 ANOMALOUS AREA**
X GROUP
 Osageos Mining Division
LODESTAR MINES LTD. (NPL)

984