

3314

KENCO EXPLORATIONS, (WESTERN) LIMITED

REPORT

ON

SOIL GEOCHEMICAL SURVEYS

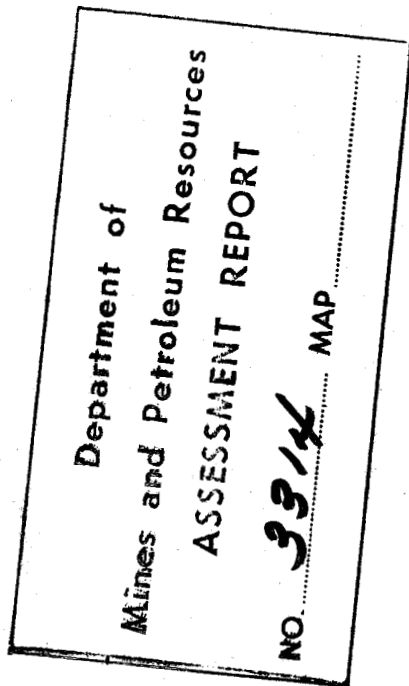
SAUNDERS NO. 1 GROUP

(Saunders Mineral Claims 1-24, 73-75, 200-205)

Situated 7 miles southwest of Toodoggone Lake,  
Omineca Mining Division,  
British Columbia

57°20'N; 127°04'W

94E / 6E

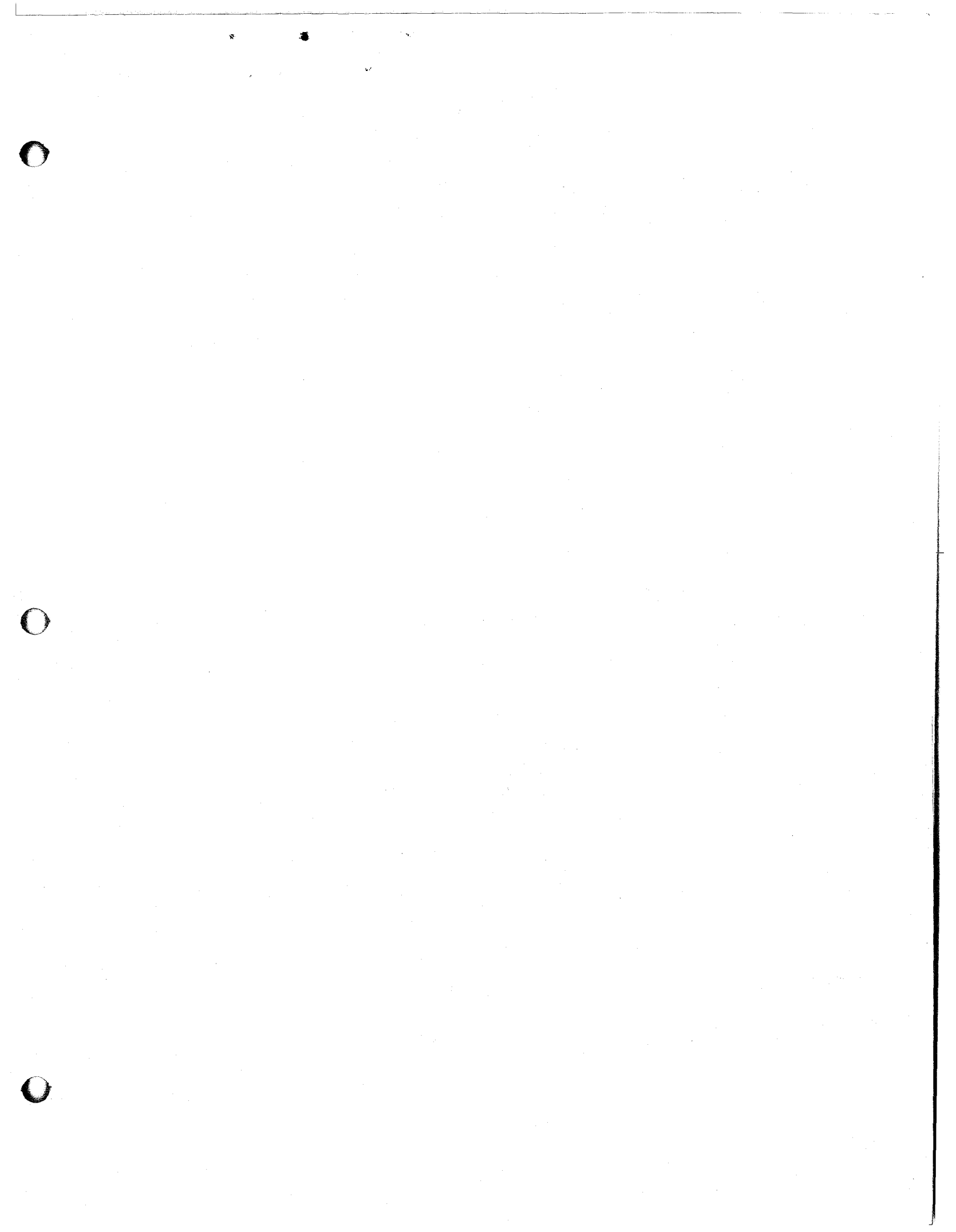


By

R. W. Stevenson, P. Eng.

Work done from July 23 to August 4, 1971

September 30, 1971



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Kennco Explorations, (Western) Limited

SAUNDERS CLAIMS

Situated 19 miles northwest of Thutade Lake

Omineca Mining Division,  
British Columbia

57° 127° SE

LOCATION MAP

*R. H. Stevenson*

Scale:  
1 : 250,000

INTRODUCTION

The mineral property discussed in this report is situated about 7 miles southwest of Toodoggone Lake, British Columbia. The exploration work on these claims consisted of three soil geochemical surveys. The relative position of the three soil survey areas is shown on the Location Map. They are all on Saunders No. 1 Group of mineral claims.

The personnel employed are listed in the Statement of Costs Incurred. The work was done under the supervision of R.W. Stevenson, P.Eng.

LOCATION AND ACCESS

The property is situated at Latitude 57°20'N; Longitude 127°04'W, about 7 miles southwest of Toadoggone Lake, and 285 miles northwest of Prince George. Soil survey area No. 3 is at an elevation of about 5000', and there is considerable alpine fir present. Soil survey areas No. 1 and 2 are between 5500' and 6000', with mainly grass vegetation.

Access to the property is by fixed wing aircraft from Smithers to Black Lake, a distance of about 180 miles, and by helicopter from there. Local travel in the survey areas is relatively easy.

SOIL SURVEY FIELD WORK

Control Survey Lines

A control grid was established by chain and compass survey in each area to be sampled. Laths and surveyor's flagging were used to mark the stations because the three areas are at or above tree-line. The three areas were compiled on a map with scale 1" = 400' for plotting the sample results.

Survey areas No. 1 and 2 explored drift-covered areas along narrow U-shaped valleys. Survey area No. 3 explored a broader area of drift-cover at the entrance to the west valley.

Soil Sample Collection

The samples were taken at 100-foot intervals along the grid lines. They were taken from the top of the "B" (rusty) horizon where possible. In much of the grassland area above tree-line, soil horizon development is relatively poor. In some rocky areas, sufficient soil could not be found to take a sample. In wet areas, only the humus zone could be sampled, and these sample points are marked "A" on the maps.

The samples were collected by digging a small hole with a mattock or with a trenching tool type of spade. By this means it was possible to examine the soil horizon development. A note was made of the grid line location, the sample number, the depth of sample, the horizon sampled, the direction of drainage, and the type of vegetation.

### Packaging

The samples were placed in 3" x 4 1/2" brown paper envelopes on which the sample numbers had been marked. These were closed with a triangular triple fold. (The bags are not anomalous in trace metals).

### Sample Preparation

The samples were taken to base camp, and partly air-dried. They were then shipped to our laboratory in North Vancouver, where they were oven-dried at 80°C, and sieved through an 80-mesh size stainless steel screen. (These sieves do not show noticeable wear even after several thousand samples have been sifted). The minus 80 mesh fraction was collected for all the analyses involved.

### Analysis

The samples were analysed in the North Vancouver laboratory of Kennco Explorations, (Western) Limited, under the supervision of H. Goddard, laboratory manager. Total extraction from a weighed sample is achieved by digestion with concentrated nitric acid and 70% perchloric acid. Determination of the Cu, Mo, Zn, Pb, Ag, Co, Ni content is made by aspiration in a Techtron AA5 Atomic Absorption Spectrophotometer. To determine the gold content, a weighed sample is digested in aqua regia, filtered, and the gold removed by solvent-solvent extraction in an organic solvent, MIBK (methyl-isobutyl-keytone). This is aspirated in the Techtron AA5.



### INTERPRETATION

The depth of overburden varies from a few inches to probably about 20' over most of the areas sampled. Considering the type of soil, it would seem likely that soil geochemistry is a reliable technique on these parts of the property. The samples were analysed for total metal content in copper, molybdenum, zinc, lead, silver, gold, cobalt, and nickel.

Sample stations that are considered to be background are uncoloured. Sample stations that are considered to be only weakly anomalous are coloured yellow. The weakly anomalous levels are 150 ppm to 299 ppm for copper, 10 ppm to 19 ppm for molybdenum, 200 ppm to 499 ppm for zinc, 70 ppm to 149 ppm for lead, 2.0 ppm to 3.9 ppm for silver, 0.10 ppm to 0.29 ppm for gold, 50 ppm to 99 ppm for cobalt, and 200 ppm to 499 ppm for nickel. Sample stations that are definitely anomalous are coloured red.

#### Soil Survey Area No. 1

Much of the soil survey area is moderately to strongly anomalous in lead, probably reflecting minor amounts of galena noted in nearby bedrock. Some of the samples that are anomalous in lead are also moderately anomalous in silver and zinc. These elements are presumably associated with the galena. Molybdenum is anomalous at a few sites on claim no. 3. Copper, gold, cobalt, and nickel are not anomalous.

#### Soil Survey Area No. 2

Lead is weakly anomalous in the southeastern part of the valley. This may also indicate minor galena mineralization; although none has yet been found. Copper, molybdenum, zinc, silver, gold, cobalt, and nickel are virtually non-anomalous.

Soil Survey Area No. 3

Lead is weakly anomalous over most of this soil area, and is strongly anomalous along the northern edge of the area. Zinc is weakly anomalous in part of the strongest lead anomaly. There are a few samples weakly anomalous in silver. There is a well defined, strong molybdenum anomaly on claim no. 23, but it appears to be no more than 700' in diameter. Copper, gold, cobalt, and nickel are virtually non-anomalous. Further field work is recommended to investigate the cause of the molybdenum anomaly.

Vancouver, B. C

R. W. Stevenson  
R. W. Stevenson, P. Eng.

September 30, 1971

STATEMENT OF COSTS INCURRED

The costs incurred on assessment work on the Saunders No. 1 Group of mineral claims were as follows:

SOIL SURVEY AREA NO. 1

Analysis of 108 soil samples for Cu,Mo,Zn,Pb,Co,Ni,Ag,Au			\$	594.00
Wages & Board:				
S.C. Gower	July 23,24	@ \$35.00 + \$10.00		90.00
M.J. Stevens	July 23,24	@ \$19.00 + \$10.00		58.00
R.S. Popaschuk	July 23,24	@ \$17.00 + \$10.00		54.00
Helicopter setout on the property	0:40 hrs @ \$175/hr			116.00
Drafting				30.00

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SOIL SURVEY AREA NO. 2

Analysis of 68 soil samples for Cu,Mo,Zn,Pb,Co,Ni,Ag,Au				374.00
Wages & Board:				
S. Earle	August 2,3	@ \$17.00 + \$10.00		54.00
G. Allen	August 2,3	@ \$16.00 + \$10.00		52.00
Helicopter setout on the property	0:40 hrs @ \$175/hr			116.00
Drafting				25.00

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SOIL SURVEY AREA NO. 3

Analysis of 157 soil samples for Cu,Mo,Zn,Pb,Co,Ni,Ag,Au				863.50
Wages & Board:				
G. Davies	August 2,3,4	@ \$35.00 + \$10.00		135.00
A. Vanderhorst	August 3	@ \$22.00 + \$10.00		32.00
P.R. Archibald	August 2,3,4	@ \$19.00 + \$10.00		87.00
D.R. MacKay	August 2,3,4	@ \$17.00 + \$10.00		81.00
C.P. Archibald	August 3	@ \$16.00 + \$10.00		26.00
Helicopter setout on the property	2:40 hrs @ \$175/hr			466.00
Drafting and typing				65.00

TOTAL = \$3,318.50



**LEGEND**

- Soil Sample Line
- ⊕ Anomalous
- ⊕ Weakly Anomalous

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 Mines and Petroleum Resources  
**ASSESSMENT REPORT**  
 NO. **3314** MAP #10

All Metal Values in P.P.M.

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Saunders No. 1 Group  
 Omineca M.D., B.C.  
 Soil Geochemical Survey  
**Nickel in Soil**

DATA BY: S.C.G.	N.T.S. 94-E	PL. NO.: 9
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TRACED BY:	DATE:	
REVISIONS: P.N.S.Y.	FILE NO.	

To Accompany Soil Geochemical Survey Report by R.W. Stevenson P.Eng. on  
 Saunders No. 1 Group, 7 Miles Southwest of Toadoggonne Lake, Omineca  
 Mining Division, Date Sept. 30, 1971.

*R.W. Stevenson*



**LEGEND**

- Soil Sample Line
- ⊕ Anomalous
- ⊖ Weakly Anomalous

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**ASSESSMENT REPORT**  
 NO. **3314** MAP # **9**

All Metal Values in P.P.M.

**KENCO EXPLORATIONS (WESTERN) LIMITED**

Saunders No. 1 Group  
 Omineca M. D., B. C.  
 Soil Geochemical Survey  
**Cobalt in Soil**

To Accompany Soil Geochemical Survey Report by R.W. Stevenson P. Eng. on  
 Saunders No. 1 Group, 7 Miles Southwest of Toadoggon Lake, Omineca  
 Mining Division, Date Sept. 30, 1971.

*R. W. Stevenson*

DATA BY:	S.C.G.	N.T.S. 94 - E	PL. NO.: B
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TRACED BY:	DATE:		
REVISIONS:	P.N.S.Y.	FILE NO.	



**LEGEND**

- Soil Sample Line
- ⊥ Anomalous
- ⊥ Weekly Anomalous

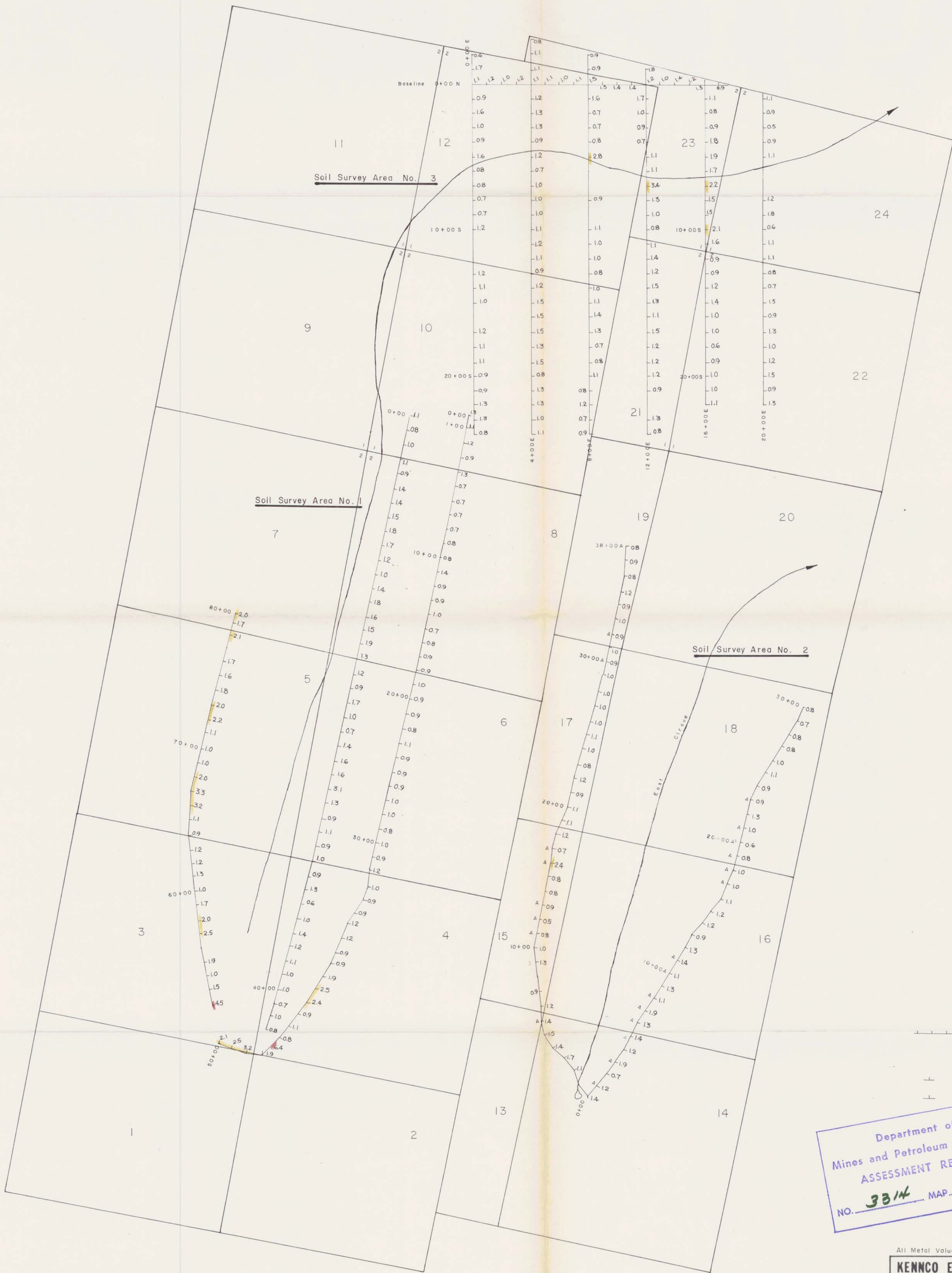
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Mines and Petroleum Resources  
**ASSESSMENT REPORT**  
NO. **3314** MAP **#8**

All Metal Values in P. P. M.

<b>KENCO EXPLORATIONS (WESTERN) LIMITED</b>			
Saunders No. 1 Group Omineca M. D., B. C.			
Soil Geochemical Survey			
Gold in Soil			
DATA BY:	S.C.G.	N.T.S. 94-E	PL. NO.: 7
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TRACED BY:		DATE:	
REVISIONS:	P.N.S.Y.	FILE NO.	

To Accompany Soil Geochemical Survey Report by R.W. Stevenson P. Eng. on  
Saunders No. 1 Group, 7 Miles Southwest of Toadoggonne Lake, Omineca  
Mining Division, Date Sept. 30, 1971.

*R.W. Stevenson*



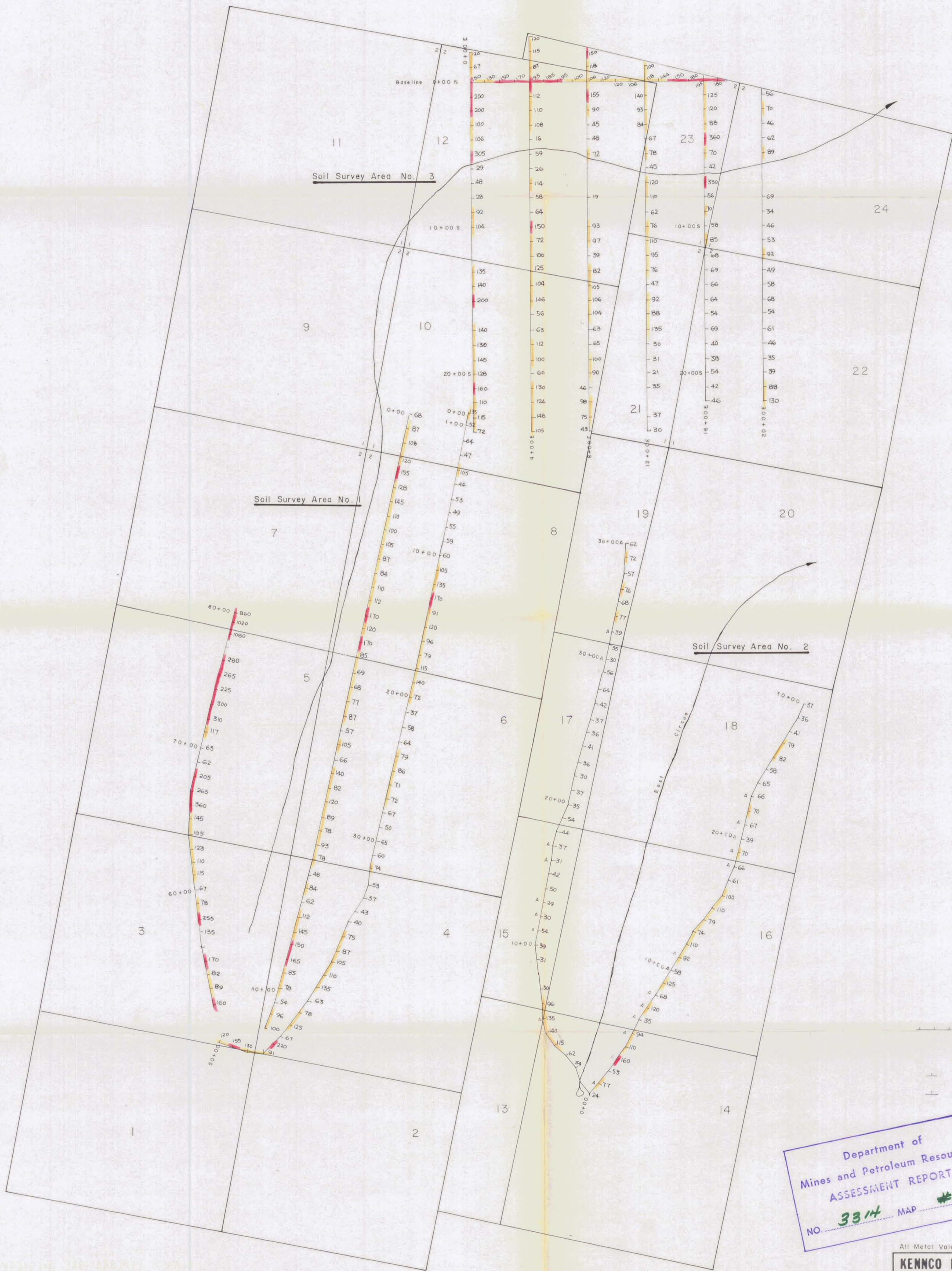
Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 3314 MAP # 7

All Metal Values in P. P. M.

<b>KENNCO EXPLORATIONS (WESTERN) LIMITED</b>			
Saunders No. 1 Group Omineca M. D., B. C.			
Soil Geochemical Survey			
Silver in Soil			
DATA BY:	S.C.G.	N.T.S. 94 - E	PL. NO.: 6
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REVISIONS:	P.N.S.Y	FILE NO.	

To Accompany Soil Geochemical Survey Report by R.W. Stevenson P. Eng. on  
Saunders No. 1 Group, 7 Miles Southwest of Toadoggonne Lake, Omineca  
Mining Division, Date Sept. 30, 1971.

*R.W. Stevenson*



**LEGEND**

Soil Sample Line

Anomalous

Weekly Anomalous

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NO. 3314 MAP #6

All Metal Values in P.P.M.

**KENNCO EXPLORATIONS (WESTERN) LIMITED**

Saunders No. 1 Group  
Omineca M.D., B.C.  
Soil Geochemical Survey  
Lead in Soil

To Accompany Soil Geochemical Survey Report by R.W. Stevenson P. Eng. on  
Saunders No. 1 Group, 7 Miles Southwest of Toadoggonne Lake, Omineca  
Mining Division, Date Sept. 30, 1971.

*R.W. Stevenson*

DATA BY: S.C.G.	N.T.S. 94-E	PL. NO.: 3
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TRACED BY:	DATE:	
REVISIONS: P.H.S.Y.	FILE NO.	





**LEGEND**

- Soil Sample Line
- Anomalous
- Weekly Anomalous

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 NO. 3314 MAP # 5

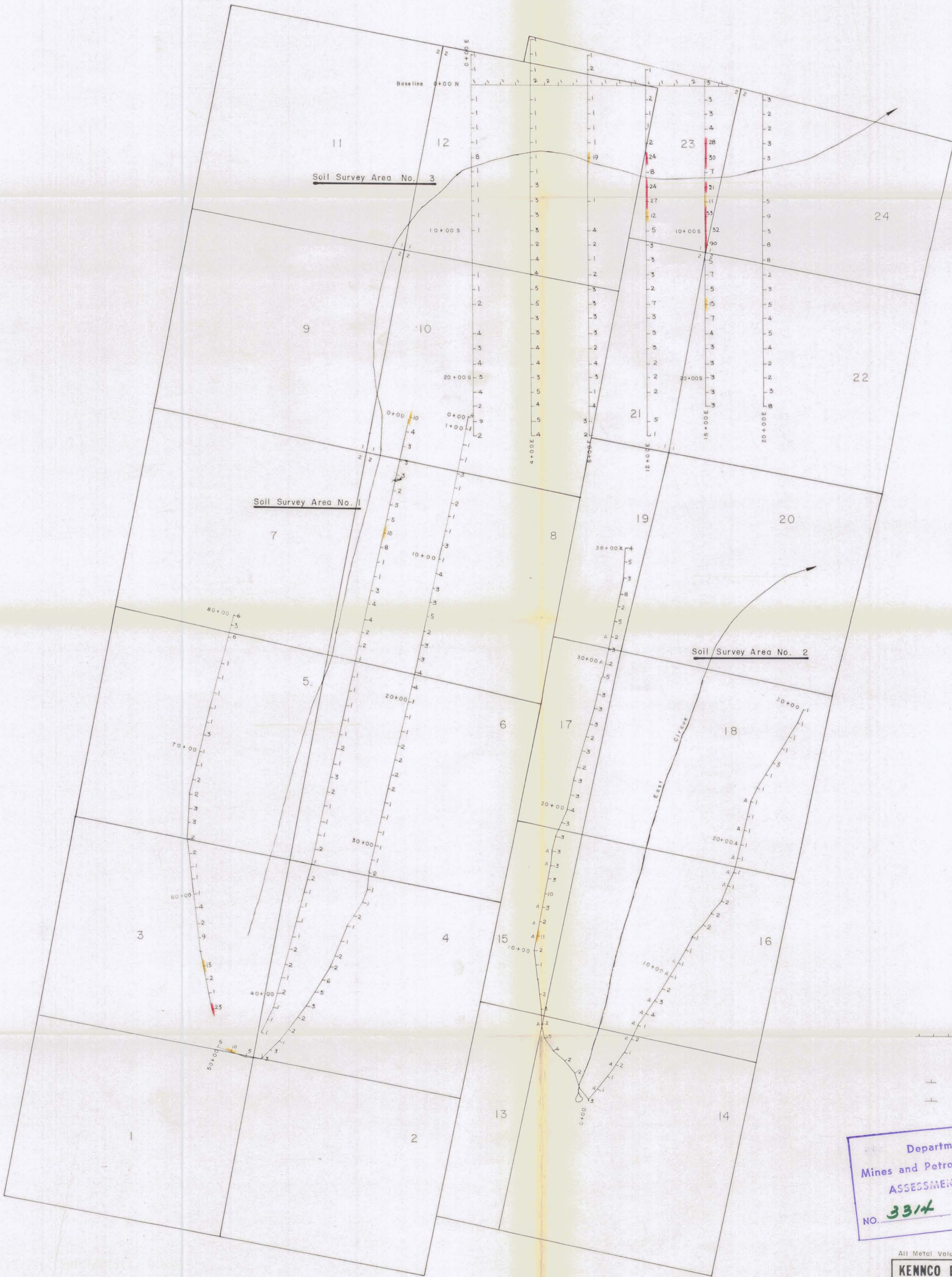
All Metal Values in P.P.M.  
**KENCO EXPLORATIONS (WESTERN) LIMITED**

Saunders No. 1 Group  
 Omineca M.D., B.C.  
 Soil Geochemical Survey  
 Zinc in Soil

To Accompany Soil Geochemical Survey Report by R.W. Stevenson P. Eng. on  
 Saunders No. 1 Group, 7 Miles Southwest of Toadaggon Lake, Omineca  
 Mining Division, Date Sept. 30, 1971.

*R.W. Stevenson*

DATA BY: S.C.G.	N.T.S. 94-E	PL. NO. 4
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TRACED BY:	DATE:	
REVISIONS: P.N.S.Y.	FILE NO.	



**LEGEND**

- Soil Sample Line
- Anomalous
- Weakly Anomalous

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NO. **3314** MAP **#4**

All Metal Values in P.P.M.

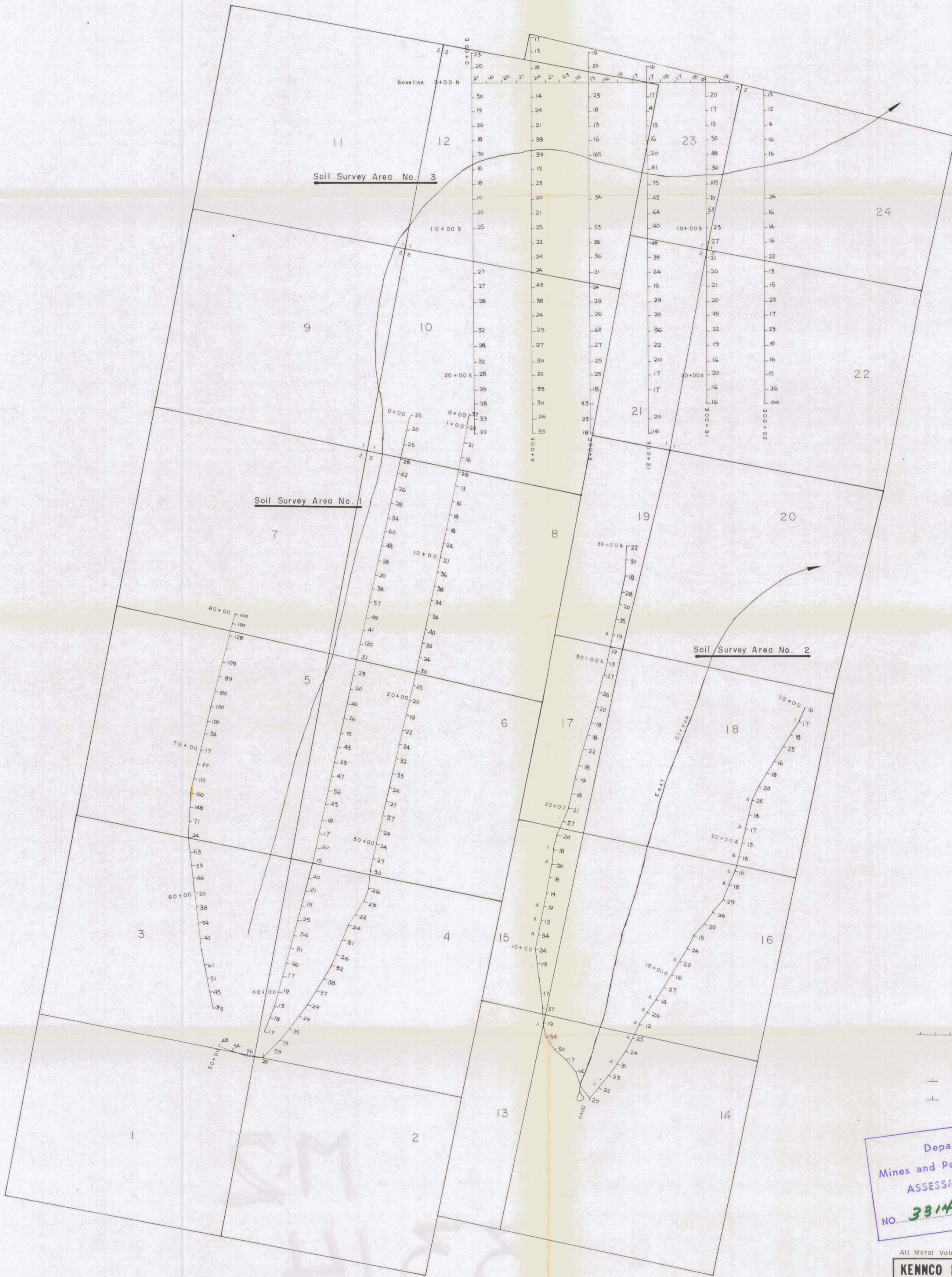
**KENCO EXPLORATIONS (WESTERN) LIMITED**

Saunders No. 1 Group  
Omineca M.D., B.C.  
Soil Geochemical Survey  
Molybdenum in Soil

To Accompany Soil Geochemical Survey Report by R.W. Stevenson P. Eng. on  
Saunders No. 1 Group, 7 Miles Southwest of Toodoggone Lake, Omineca  
Mining Division, Date Sept 30, 1971.

*R.W. Stevenson*

DATA BY:	S.C.G.	N.T.S. 94 - E	PL. NO. 2
DRAWN BY:	DATE:	SCALE:	1" = 400'
TRACED BY:	DATE:		
REVISIONS:	P.N.S.Y.	FILE NO.	



**LEGEND**

- Soil Sample Line
- Anomalous
- Weekly Anomalous

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Mines and Petroleum Resources  
**ASSESSMENT REPORT**  
NO. **3314** MAP **#3**

All Metal Values in P. P. M.

**KENCO EXPLORATIONS (WESTERN) LIMITED**

Saunders No. 1 Group  
Omineca M. D., B. C.  
Soil Geochemical Survey  
Copper in Soil

To Accompany Soil Geochemical Survey Report by R. W. Stevenson, P. Eng. on  
Saunders No. 1 Group, 7 Miles Southwest of Toadoggonne Lake, Omineca  
Mining Division, Date Sept 30, 1971.

*R. W. Stevenson*

DATA BY:	S.C.G.	N.T.S. 94 - E	PL. NO.: 2
DRAWN BY:	DATE:	SCALE:	1" = 400'
TRACED BY:	DATE:		
REVISIONS:	P.N.S.V.	FILE NO.	



**LEGEND**

- Soil Sample Line
- A Humus Horizon

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**ASSESSMENT REPORT**  
NO. **3314** MAP #2

M-2  
3314

All Metal Values in P. P. M.			
<b>KENNCO EXPLORATIONS (WESTERN) LIMITED</b>			
Saunders No. 1 Group Omineca M. D., B. C.			
Soil Geochemical Survey			
Soil Sample Sites			
DATA BY:	S.C.G.	N.T.S. 94 - E	PL. NO.: 1
DRAWN BY:	DATE:	SCALE:	1" = 400'
TRACED BY:	DATE:		
REVISIONS: PHSY			FILE NO.

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*R.W. Stevenson*