

LOG NO: 0130	RD.
ACTION:	
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GEOCHEMICAL SURVEY REPORT

TWILIGHT GROUP

NELSON MINING DIVISION

N T S 82F/6E

Latitude 49 degrees 16' N

Longitude 117 degrees 11' W

OWNER: Jack Denny

OPERATORS: Eric Denny, Jack Denny

AUTHOR: Eric Denny

FILMED

December 1989

Respectfully submitted by

*Eric Denny*

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

19,587

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## INTRODUCTION

### Location

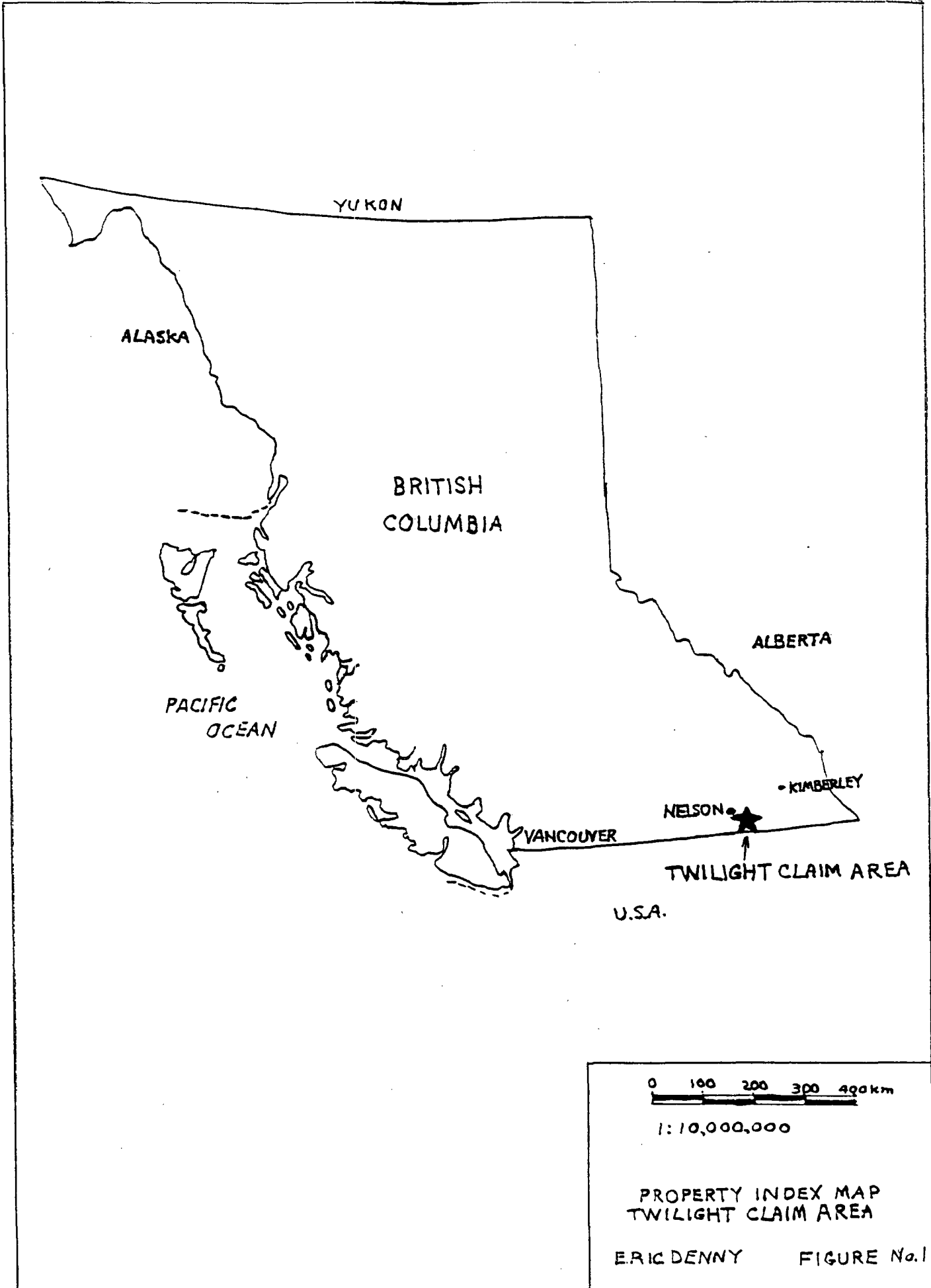
The Twilight claims are located on the east side of Salmo River on the southwest slope of Jubilee Mountain. They are 4 kilometers southeast of Ymir an old mining town that is 24 kilometers south of Nelson, B. C.

### Access

Access is by the old road to the Centre Star Mine from Ymir 4 km or by the Oscar Creek logging road a branch of which leads onto the Oscar 2 claim 6 km. Also an overgrown road from near the mouth of Porcupine Creek and an old trail from the Dewey Mine all lead to the claims.

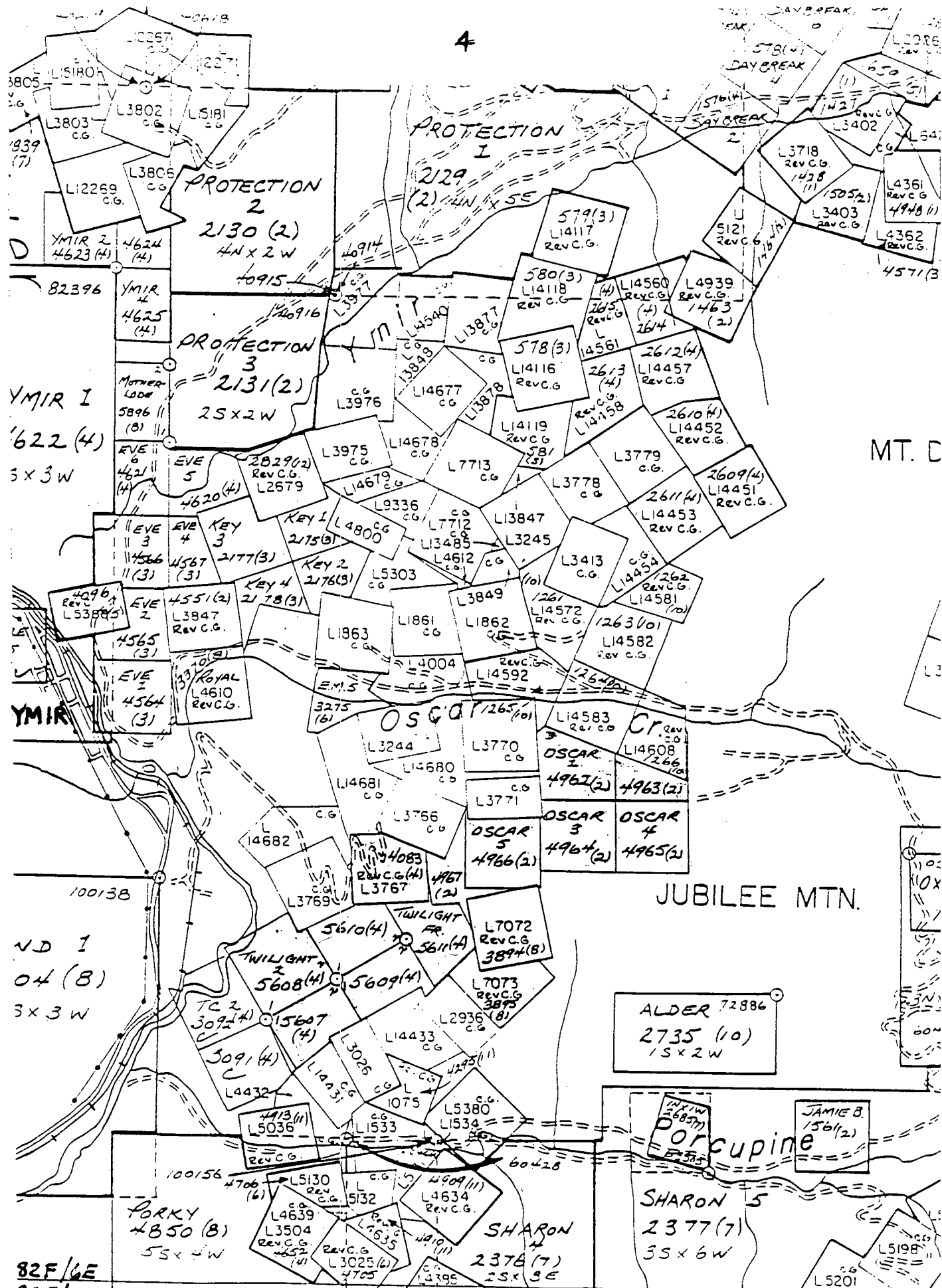
### Property Description

The property consists of three reverted crown grant claims and eleven 2 post claims as outlined below and which are shown on Figures No. 2, 3 and 4. The staked claims cover some former surveyed claims called the New York Central, Canion Fr., Mineral Zone, Redman Fr. and Riverside. On the north they adjoin the crown granted claims of the Centre Star Mine and on the south they adjoin the Dewey Jubilee, Tyne and Blue Eyed Nellie crown grants held by American owners. According to the original survey field notes these claims to the south are further north than they are shown on the claim maps and topographical maps thus narrowing the Twilight 1 - 5 claims and making uncertain the ownership of some of the old workings until such time as more survey posts are found.



TWILIGHT CLAIM GROUP

<u>Claim Name</u>	<u>Lot No.</u>	<u>Record No.</u>	<u>Expiry Date</u>	<u>Owner</u>
Twilight	L.3767	4083	April 1, 1990	Jack Denny
Blue Quartz	L.7072	3894	August 23, 1990	" "
Rover	L.7073	3895	August 23, 1990	" "
Oscar 1		4962	February 23, 1990	" "
Oscar 2		4963	" " "	" "
Oscar 3		4964	" " "	" "
Oscar 4		4965	" " "	" "
Oscar 5		4966	" " "	" "
Oscar Fr.		4967	" " "	" "
Twilight 1		5607	April 25, 1990	
Twilight 2		5608	" " "	" "
Twilight 3		5609	" " "	" "
Twilight 4		5610	" " "	" "
Twilight Fr.		5611	" " "	" "



TWILIGHT GROUP - CLAIM LOCATION ON CLAIM MAP 82F/6E  
SCALE - 1:31,680

FIGURE No. 2

### TOPOGRAPHY

The topography is shown on Figure No. 3. On the western claims the ground slopes to the west and is fairly steep. The Oscar claims are in an area of more moderate to almost level slopes. Altitudes range from 760 M to 1600 M.

### VEGETATION AND OVERBURDEN

Most of the claims are covered with second growth timber about one half of it merchantable size. Fir, larch and jack pine predominate but there is also some hemlock, cedar, balsam, spruce, poplar and birch. Most of the area was burnt in the 1930's. Underbrush is moderate except in the Blue Quartz and Rover area where on the main ridge it is heavy with few trees. Overburden is light or less than one half meter deep on an average. Outcrop amounts to less than 10 percent of the surface.

### EXPLORATION HISTORY

The Ymir area attracted placer miners in the late 1860's. They had panned their way up the Salmo River from the Columbia and Pend d'Oreille. Mineral exploration started about 1885 on Wildhorse Creek but the area did not become active until 1896 which was the boom year when most of the important claims were discovered and staked. By 1900 there were 9 stamp mills operating (155 stamps in total). Tonnage treated or shipped to the end of 1899 was 30,857 tonnes. The Ymir 80 stamp mill was the largest in B. C. by 1902. The greater part of the Ymir Mine production was over by 1905; about the time the Yankee Girl started to produce. The greater part of Yankee Girl production was after the price of gold was raised from \$20. to \$35. in 1934.



The Centre Star claims were staked in 1900 and crown granted in 1905 but no intensive prospecting or development work was done on them until 1934 when the Wesko Exploration and Development Company took over the claims and worked them on a large scale until 1938. The Ymir, Yankee Girl and Centre Star are all in the large contact zone of Ymir Formation (formerly called the Pend d' Oreille Formation) and the Nelson Granite to the east. The Twilight L.3767 was originally part of the Centre Star L.3766, Redman L.3769, Crowfoot L.3770, Blind Canyon L.3771 Group. As it is an integral part of the group it is hard to understand why it became separated. Many years ago the writer tried to buy it as a crown grant from the owner who wouldn't sell it and claimed it was the key claim to the Centre Star Group. Later it reverted to the crown. The portal of the 300 foot level of the Centre Star is about 25 metres within the Twilight boundary as shown on Lakes map and proven with a crown grant post, cairn and iron pin we found in 1989 that marks the N.W. corner of the Twilight. The fact that an individual owned this claim for many years is probably the reason there has been little development on it.

Production figures for these three mines are

Mine	Year	Tonnes Mined	Gold (Grams)	Silver (Grams)	Lead (Kilograms)	Zinc (Kilograms)
Ymir	1899-1950	330,284	3,757,841	15,733,695	4,777,153	806,401
Yankee Girl	1907-1951	367,632	4,242,837	24,279,128	6,194,719	6,474,316
Centre Star	1936-1950	51,052	425,648	3,257,554	966,422	475,639

GEOLOGY

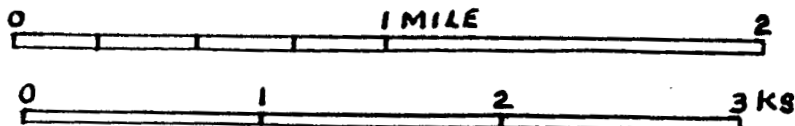
The geology is shown on Figure 3 which is a copy of part of McAllister's map 51 - 4A. Although this is a 1951 map the geology is still shown the same on Hoy & Andrew's maps O F 1988 - 1 and O F 1989 - 11. McAllister in his report 51 - 4 page 45 states. "The property (Centre Star) lies in a broad contact zone between the Nelson batholith and rocks of the Ymir group. The zone consists of sheared and altered argillites and quartzite cut by innumerable small bodies of granite and granite-gneiss. Small bodies of aplitic intrusive rocks are found in the workings as well as lesser amounts of andesitic rock related to the Elise formation. Lamprophyre dykes cut the orebody and follow post-ore faults."

Cockfield states (Page 20 - Memoir 191) that -- "The rock structures are complicated by faults. A number of strong fault zones striking north 30 to 50 degrees east and dipping fairly steeply southeast, cut the formation into fault blocks. Those exposed by mining operations are 15 - 30 feet wide and are somewhat similar to others occurring on surrounding properties as, for example, the Yankee Girl, Dundee, Nevada and others. These fault zones have the same trend as Salmo Valley below Ymir and are probably related to major regional movements. The veins occur in fault fissures striking north 60 to 80 degrees east and dipping 60 to 75 degrees northwest, the main vein-fissure, as explored to date, lying between two of the northeasterly fault zones referred to above."

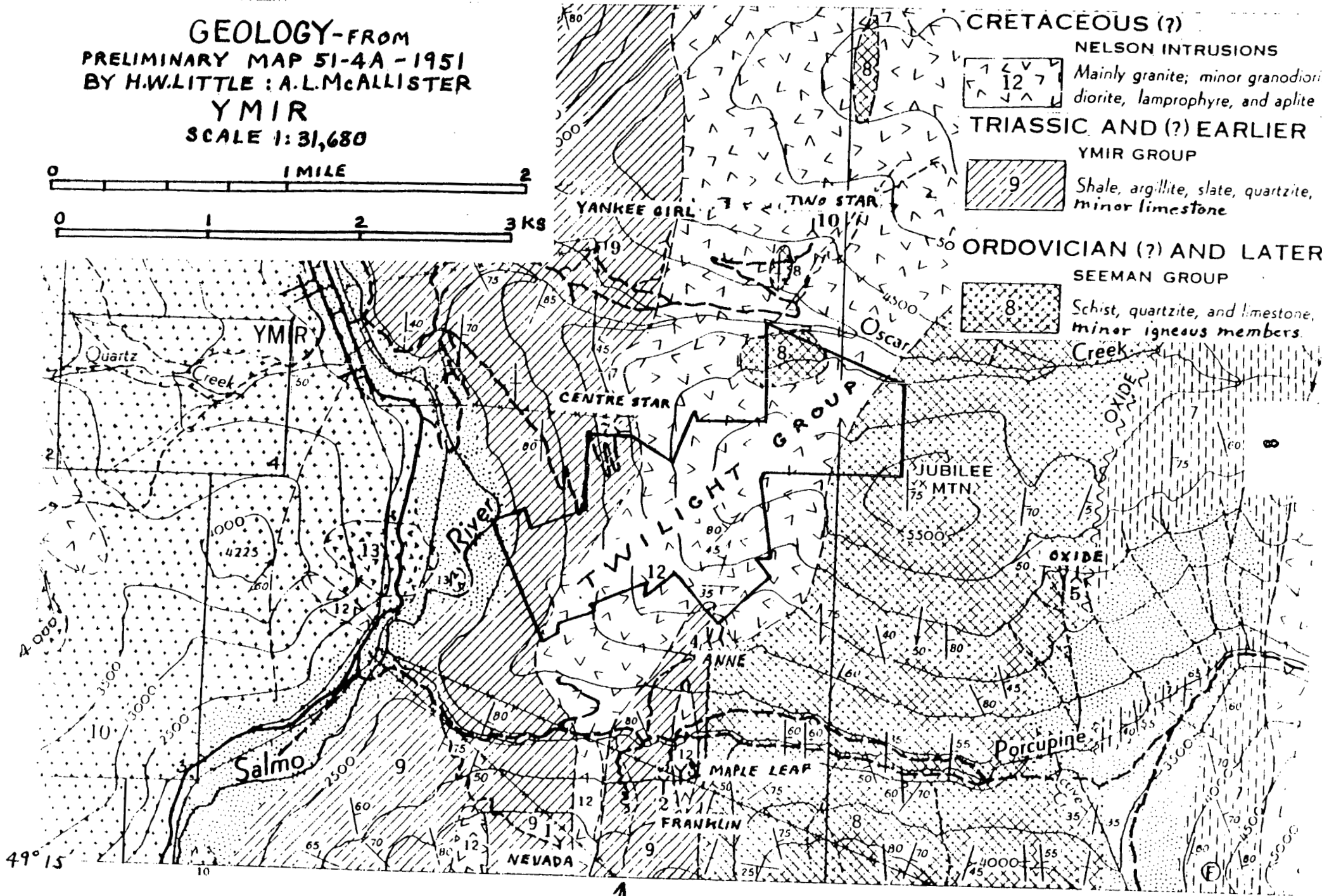
Cockfield also mentions showings of interest to the southwest of the Centre Star, which we have examined.

From west to east is the Ymir Group, Nelson batholith and the Seeman group which is similar to the Ymir but of older Lower Cambrian age. (Hoy) See Figure No. 3 for geology.

**GEOLOGY-FROM  
PRELIMINARY MAP 51-4A -1951  
BY H.W.LITTLE : A.L.McALLISTER  
YMIR  
SCALE 1:31,680**



- CRETACEOUS (?)**
- NELSON INTRUSIONS**  
Mainly granite; minor granodiorite, diorite, lamprophyre, and aplite
- TRIASSIC AND (?) EARLIER**
- YMIR GROUP**  
Shale, argillite, slate, quartzite, minor limestone
- ORDOVICIAN (?) AND LATER**
- SEEMAN GROUP**  
Schist, quartzite, and limestone, minor igneous members



49° 15'

↑ TWILIGHT GROUP 117° 10'

FIGURE No. 3

WORK DONEGEOCHEMICAL PROGRAM

The object of the geochemical soil sampling program was to hopefully pick up indications of the continuation of veins and fault zones proven on the Centre Star or parallel structures to these. The "south vein system", shown on Lake's map and mentioned by Cockfield, has not been developed on the Twilight. It was also hoped that the sampling would indicate the presence of the "Jubilee" vein which is supposed to run through the Rover and Blue Quartz claims and the New York Central vein further to the west and any other unknown mineral showings that might exist.

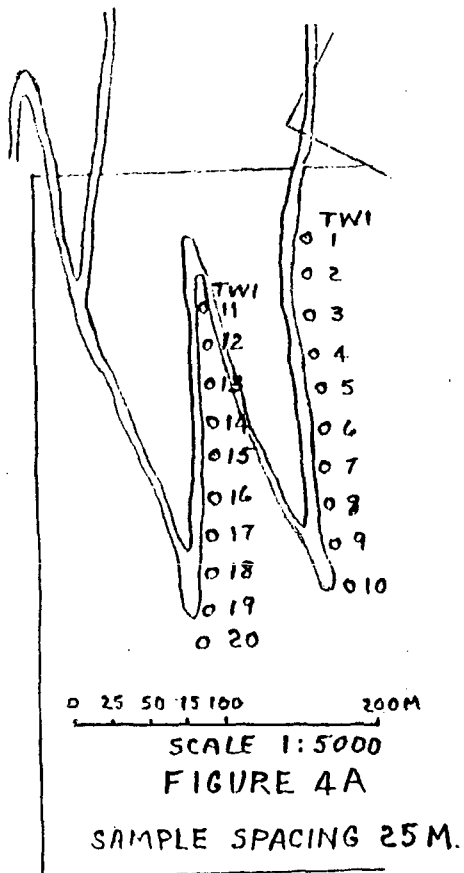
LINE MARKING

Lines were cut and blazed with an axe and measured with a hip chain with an allowance for slope correction. The 6.3 km of grid lines were marked with orange flagging with station location printed on each with a black felt pen. The main grid was made in 1988 and credited to assessment for that year. Lines are 200 meters apart with 50 meters between stations. The baseline is also the claim line for the Oscar 1 - 4. The Twi grid stations are 25 meters apart.

SOIL SAMPLING AND ANALYSIS

129 soil samples were taken of the B horizon at depths of 8 - 30 centimeters with a steel grub hoe. Samples were placed in brown kraft paper soil envelopes and partially dried. The Sample Analysis soil samples were sent to Acme Analytical Laboratories Ltd. where they were completely dried and sieved to --80 mesh material and run for 30 element ICP (Inductively Coupled Plasma) analysis. A.500 gram sample is digested with 3 ML 3-1-2 HCL - HNO3 - H2O at 95 degree C. for one hour and is diluted to 10 ML with water. Gold analysis is done by acid leach of a 10 gram sample and the gold detected by atomic absorption.

# SOIL SAMPLING RESULTS FOR TWI-1-TWI-20



SEE FIGURE 4 FOR POSITION OF ABOVE (TWI GRID)

TWI	TWI	TWI	TWI	TWI	TWI	TWI	TWI	TWI	TWI
116	445	579	1568	.1	2.9	13	31	4	99
59	116	359	686	.1	.9	12	26	5	9
142	132	498	422	.3	.1	36	15	6	1
181	164	333	457	.1	.3	13	20	18	40
87	892	241	454	.3	.7	15	18	6	34
101	126	223	419	.1	.3	13	18	3	2
118	144	341	470	.4	.7	21	14	4	6
74	64	244	465	.1	.1	19	23	1	1
53	66	182	282	.2	.3	11	30	27	1
46	67	200	274	.6	.1	19	12	12	2
LEAD PPM		ZINC PPM		SILVER PPM		ARSENIC PPM		GOLD PPB	
● 60-149		● 300-399		● 1.4-2.0		● 20-49		● 12-49	
● 150-499		● 400-499		● OVER 2.0		● 50-100		● 50-100	
● 500-1000		● 500-1000				● OVER 100		● OVER 100	
● OVER 1000		● OVER 1000							

CHART NOT TO SCALE

BY: ERIC DENNY

*Eric Denny*  
FIGURE No. 4A

## RESULTS

The results are shown by symbol on Figures 4A, 5 - 10.

Symbols were used in preference to contouring as any contouring done would be misleading and guesswork due to the wide 200 meter distance between lines as the main grid was strictly a reconnaissance type grid. Results were plotted for gold, silver, lead, zinc and arsenic because all of these showed a distinct contrast between highs and background, whereas the other minerals did not except for the occasional higher value. Anomalous values and grades of anomaly were determined from personal experience and a study of numerous exploration programs and assessment reports over many years in the Nelson area. Generally speaking the results for gold, lead and zinc correlate well and are high in the Twi grid area and the west end of lines 100 north and 100 south and would tend to indicate that some of the Centre Star structures follow through onto Twilight ground.

There are anomalous silver, zinc and arsenic values shown toward the east end of line 100S. There are other highs here and there. Some of these are near the Granite-Seeman contact.

## CONCLUSIONS AND RECOMMENDATIONS

This widely spaced, reconnaissance type soil sampling grid has shown a definite need for further prospecting and for close spaced geological mapping of this whole area and further soil sampling on the Twilight L.3767 on a 25 meter grid covering the whole claim and extending beyond it to the southwest. Another 25 meter soil sampling grid should be made in the area of 100N and 100S from 500 W to 850 W and further south. The first grid should be followed by trenching and if successful the ground could be diamond drilled from the existing switchback road that ends on the Centre Star claim.

Further claim posts of the old surveys should be located so that the south boundary of the Twilight group could be definitely established to make sure of who owns what ground. Any old workings within the Twilight ground should be cleared and sampled. There are quite a lot of old workings that we have found but as little mineral was obvious we have only partially cleared them and marked them well until such time as their location can be plotted accurately and we can clear them out properly.

SUMMARY

The Twilight Group is underlain by the same geological structures that have hosted three major mines so it is felt that detailed geological mapping, further prospecting and soil sampling, trenching, opening up and sampling of old showings is well warranted. If this work shows good results then several diamond drill holes could be drilled at a very reasonable cost from the old Centre Star road as even from the work done so far it would appear that there is a strong possibility of intersecting the southwesterly extension of the Centre Star mineralization structures.

REFERENCES

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2. British Columbia Minfile
3. Ymir District Mines by R. W. Macfarlane and others 1900
4. Drysdale, C. W. Ymir Mining Camp G.S.C.Memoir 94 and map 1917
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6. Cockfield, W. E. Lode Gold Deposits of Ymir-Nelson Area  
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7. McAllister, A.L. Ymir Map Area G.S.C. Paper 51-4 and  
Map 51 - 4A 1951
8. Little, H.W. Nelson Map Area West Half G.S.C.Memoir 308  
and Maps 1090A, 1091A and 1144A 1960
9. Hoy, T. - Andrew K. O.F. 1988-1 Maps and Report 1988
10. Hoy, T. - Andrew K. O.F. 1989-11 Maps and Report 1989



ITEMIZED COST STATEMENT

Labour - finishing grid and sampling, road work on claims, locating original survey, partially clearing 3 trenches, a shaft and an adit portal shown of Figure #4 8 man-days @ \$120. per man-day	\$ 960.00
Transportation 1980 F150 - 4x4 Ford 4 days @ \$50.per day	200.00
Soil Analysis 129 samples by 30 element ICP plus geochemical gold	1109.40
Geochemical Report and Map Production 5 days @ \$120. per day	600.00
Typing, photostating, office supplies, express charges_	<u>250.00</u>
	\$3119.40

STATEMENT OF QUALIFICATIONS

I, Eric Denny, do hereby certify that --

I have been prospecting for forty-four years the last eighteen years of which it has been my full time occupation.

Most of my prospecting has been for myself but I have also prospected for numerous companies.

I attended prospecting classes in Nelson in 1953, 1955, 1960, 1964 and 1968. Since then I have attended many lectures on geology, geochemistry and geophysics at various cities.

I have a large library that is kept up to date and a good map collection of which is well used both for my own use and in research for my geological friends and mining companies.

I have personally spent many days on the Twilight claims and surrounding area in the past few years.

This Geochemical Report is Respectfully submitted by

*Eric Denny*

## GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
 THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.  
 - SAMPLE TYPE: Soil -80 Mesh AU\* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: NOV 28 1989 DATE REPORT MAILED: Dec 4/89 SIGNED BY: D. TOYE, C. LEONG, J. WANG; CERTIFIED B.C. ASSAYERS

ERIC DENNY File # 89-4903 Page 1

SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
7+00N 3+50W	1	25	19	243	.4	39	12	705	3.60	4	5	ND	4	20	1	2	2	53	.20	.119	12	31	.50	128	.12	4	3.31	.02	.09	1	5
7+00N 3+00W	2	11	19	234	.5	19	8	378	3.35	8	5	ND	2	13	1	2	2	50	.14	.075	12	21	.36	95	.11	6	2.97	.01	.06	1	5
7+00N 2+50W	1	22	25	281	.5	41	16	895	4.05	7	5	ND	4	60	2	2	3	64	.40	.298	21	62	1.04	353	.21	3	3.30	.01	.13	1	3
7+00N 2+00W	2	19	21	214	.5	25	13	968	3.83	7	5	ND	3	28	1	2	12	60	.24	.070	15	42	.68	160	.18	2	2.54	.01	.10	2	4
7+00N 1+50W	1	16	25	233	.6	18	10	853	3.80	11	5	ND	4	17	1	2	2	59	.14	.189	10	26	.47	194	.13	7	2.80	.01	.07	1	1
7+00N 1+00W	1	11	29	186	.4	17	10	517	4.07	6	5	ND	4	13	1	2	3	59	.13	.210	9	25	.44	137	.14	2	3.39	.01	.08	1	1
7+00N 0+50W	2	16	23	377	1.0	16	11	4708	3.49	6	5	ND	1	17	4	2	6	49	.17	.195	10	20	.35	213	.14	8	2.55	.02	.06	1	3
7+00N 0+00	2	32	31	371	1.7	35	11	842	3.70	11	5	ND	1	24	3	2	2	50	.21	.081	17	30	.56	148	.10	16	3.22	.01	.11	1	1
5+00N 4+00W	2	13	22	109	1.0	14	9	271	3.38	6	5	ND	4	17	1	2	2	44	.13	.192	7	23	.35	81	.12	7	4.96	.01	.06	1	11
5+00N 3+50W	2	25	165	321	1.5	24	10	898	3.28	9	6	ND	4	14	3	3	2	47	.15	.119	15	27	.57	118	.13	3	2.81	.01	.08	1	5
5+00N 3+00W	3	28	49	244	.6	25	12	1197	3.39	6	5	ND	2	22	2	2	3	50	.27	.073	24	31	.66	109	.12	3	2.72	.01	.08	1	10
5+00N 2+50W	2	46	20	148	.9	17	9	1265	2.70	6	84	ND	1	73	4	2	5	39	1.20	.110	37	29	.50	108	.09	9	3.78	.02	.08	1	3
5+00N 2+00W	1	20	24	196	.7	31	10	662	3.35	12	18	ND	2	58	3	2	7	45	.76	.092	28	33	.81	115	.09	2	3.26	.02	.13	1	3
5+00N 1+50W	1	21	24	224	.6	29	9	737	3.02	12	13	ND	1	50	2	2	5	41	.66	.117	29	27	.74	99	.06	2	2.46	.01	.12	1	6
5+00N 1+00W	1	16	21	153	.4	19	10	559	2.90	6	5	ND	2	29	1	2	6	42	.34	.114	13	23	.50	137	.10	2	3.14	.01	.08	1	3
5+00N 0+50W	2	24	24	248	.8	20	11	785	3.19	7	5	ND	3	20	2	2	3	47	.21	.220	12	26	.46	173	.11	4	3.00	.02	.09	1	4
5+00N 0+00	1	25	15	225	.4	31	10	601	3.49	6	8	ND	4	35	1	2	2	49	.36	.070	33	32	.86	179	.10	6	3.19	.02	.19	1	9
5+00N 0+50E	1	18	13	127	.8	14	7	585	2.76	8	5	ND	1	66	1	2	2	30	.52	.409	12	17	.31	136	.06	4	3.24	.02	.07	1	5
5+00N 1+00E	2	15	17	157	.4	17	7	467	2.58	7	5	ND	3	13	1	2	2	34	.12	.139	15	21	.35	106	.07	2	3.65	.01	.08	2	6
5+00N 1+50E	2	19	21	151	.5	26	10	899	2.89	16	5	ND	6	14	1	2	2	39	.14	.094	20	26	.51	145	.07	12	2.81	.01	.08	2	3
5+00N 2+00E	2	16	22	123	.8	12	10	695	3.72	11	5	ND	4	11	1	2	2	49	.11	.083	12	22	.28	85	.09	3	3.34	.01	.07	1	1
5+00N 2+50E	2	14	17	111	1.8	12	8	745	2.65	5	5	ND	4	11	1	2	4	35	.11	.104	10	17	.20	106	.11	5	4.07	.01	.06	1	6
5+00N 3+00E	1	21	22	165	.6	21	8	549	2.87	10	5	ND	4	14	1	2	2	38	.16	.118	16	24	.45	114	.08	4	3.11	.01	.08	1	12
5+00N 3+50E	1	20	23	119	.4	17	7	692	2.67	7	5	ND	1	15	1	2	2	40	.15	.074	13	21	.29	125	.08	2	1.94	.01	.06	1	25
5+00N 4+00E	2	13	22	134	.5	12	8	484	3.26	9	5	ND	2	17	1	2	4	44	.18	.084	13	20	.34	109	.09	9	2.66	.01	.07	1	5
5+00N 4+50E	1	16	24	131	.6	17	8	422	2.77	10	5	ND	5	14	1	2	2	35	.15	.169	13	19	.31	104	.08	13	3.54	.02	.06	1	6
3+00N 4+50W	2	22	23	223	.5	23	12	615	3.06	6	5	ND	4	12	2	2	2	43	.13	.135	13	23	.41	111	.13	13	4.13	.02	.07	1	2
3+00N 4+00W	2	20	28	151	.9	25	8	300	3.66	12	10	ND	8	10	1	4	2	50	.11	.166	13	33	.51	90	.11	4	4.01	.01	.08	1	4
3+00N 3+50W	2	20	26	178	.6	24	14	844	3.27	7	5	ND	4	16	1	2	2	44	.15	.275	13	30	.42	163	.16	2	3.78	.01	.08	1	1
3+00N 3+00W	2	25	27	449	.8	57	13	422	3.80	18	5	ND	8	19	2	2	8	55	.21	.152	17	43	.99	143	.14	6	3.82	.01	.14	1	7
3+00N 2+50W	1	24	27	241	.7	31	12	470	3.55	12	5	ND	7	19	1	2	2	51	.22	.085	16	31	.73	141	.14	2	3.76	.01	.11	1	2
3+00N 2+00W	1	21	56	179	.7	22	9	616	3.34	9	5	ND	4	11	1	2	3	50	.12	.109	16	26	.50	133	.11	9	2.65	.01	.08	1	4
3+00N 1+50W	1	22	38	189	.6	25	12	717	3.33	10	5	ND	5	19	1	4	2	47	.19	.083	20	25	.57	127	.12	7	3.32	.01	.09	1	3
3+00N 1+00W	2	28	31	220	.4	21	10	981	3.24	9	5	ND	1	29	2	2	2	39	.38	.102	24	22	.44	102	.07	5	2.61	.01	.09	1	8
3+00N 0+50W	3	30	36	176	.6	23	9	1115	2.80	8	19	ND	1	37	4	2	2	36	.45	.062	36	20	.42	110	.07	4	2.02	.01	.07	1	4
3+00N 0+00	1	20	27	155	.3	21	8	595	2.97	9	5	ND	2	53	1	2	2	38	.66	.098	25	25	.59	121	.06	3	2.54	.01	.09	1	1
STD C/AU-S	18	57	36	132	6.7	67	30	1000	4.03	41	20	7	38	49	18	16	21	58	.48	.096	39	55	.86	175	.06	35	1.97	.06	.14	13	47

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SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
3+00N 0+50E	2	16	29	133	.1	16	7	494	2.67	6	5	ND	1	12	1	2	2	35	.13	.084	24	21	.41	69	.08	5	3.15	.01	.07	2	3
3+00N 1+00E	1	16	18	141	.8	15	7	879	2.39	5	5	ND	1	11	1	2	2	33	.12	.080	17	16	.25	96	.09	3	3.26	.01	.05	1	1
3+00N 1+50E	2	11	19	93	.1	13	6	274	3.08	9	5	ND	1	9	1	2	2	38	.09	.160	12	18	.29	73	.08	2	3.10	.01	.06	2	1
3+00N 2+00E	1	20	19	112	.6	19	8	468	2.76	18	5	ND	1	49	1	2	2	33	.50	.080	38	27	.45	116	.08	3	3.74	.01	.08	1	7
3+00N 2+50E	1	24	32	224	.2	18	9	1502	2.71	10	5	ND	1	59	2	2	3	34	.90	.094	13	21	.39	250	.07	7	1.70	.01	.10	1	4
3+00N 3+00E	1	29	21	148	.5	21	9	1178	2.94	11	5	ND	1	41	2	2	2	37	.46	.119	40	27	.41	135	.07	4	3.68	.02	.10	1	2
3+00N 3+50E	1	20	22	112	.1	19	8	547	2.90	13	5	ND	1	41	1	2	2	35	.42	.114	16	17	.31	141	.07	4	1.83	.01	.07	1	2
3+00N 4+00E	1	20	20	147	.2	12	7	1296	2.51	7	5	ND	1	17	1	2	2	33	.23	.176	12	14	.21	145	.07	2	1.49	.01	.07	1	1
3+00N 4+50E	1	27	27	197	.2	24	13	1806	3.42	13	5	ND	2	31	1	2	3	44	.26	.199	13	21	.41	140	.10	8	2.94	.02	.09	1	1
1+00N 15+00W	1	43	390	1171	2.2	61	17	1573	3.66	29	5	ND	3	66	12	2	4	47	.50	.273	16	44	.94	257	.14	6	4.28	.01	.20	2	188
1+00N 14+50W	1	20	1160	1590	.9	24	9	977	3.11	86	5	ND	4	36	17	2	8	32	.31	.223	12	17	.31	220	.14	6	3.49	.02	.09	2	61
1+00N 14+00W	2	38	1276	2245	.5	29	21	5390	5.85	97	5	ND	1	72	34	2	2	58	.82	.108	19	39	.77	258	.10	10	3.21	.01	.14	3	59
1+00N 13+50W	1	27	141	279	.3	34	15	1812	3.63	20	5	ND	4	54	4	2	7	50	.40	.177	25	32	.84	415	.16	8	3.79	.01	.15	1	14
1+00N 13+00W	1	25	43	258	.1	33	18	2684	4.09	14	5	ND	2	48	3	2	3	59	.40	.165	21	43	1.07	475	.19	2	2.75	.01	.22	1	1
1+00N 12+50W	1	28	43	203	.3	33	17	2877	3.38	15	5	ND	2	57	3	2	2	47	.44	.094	20	27	.62	233	.13	8	3.78	.01	.19	1	4
1+00N 12+00W	2	23	32	154	.3	31	13	1137	3.27	12	5	ND	2	21	1	2	6	44	.16	.104	15	25	.57	128	.11	8	3.13	.01	.13	2	21
1+00N 11+50W	1	20	29	152	.2	40	12	1282	3.20	17	5	ND	3	47	1	2	5	42	.36	.190	15	29	.64	310	.12	2	3.50	.01	.14	1	1
1+00N 11+00W	3	27	27	178	.3	46	20	1302	3.74	14	5	ND	6	45	1	3	8	50	.37	.347	23	32	.65	292	.14	4	3.93	.01	.15	3	1
1+00N 10+50W	2	31	36	179	.5	52	15	1121	3.29	12	5	ND	5	21	1	2	4	46	.21	.150	13	34	.71	176	.12	5	3.56	.01	.13	1	8
1+00N 10+00W	1	22	29	200	.7	44	13	1256	3.15	9	5	ND	4	20	1	2	2	45	.17	.207	16	34	.66	182	.12	12	3.50	.01	.12	1	4
1+00N 9+50W	2	29	19	200	1.0	36	11	613	2.83	13	5	ND	4	24	2	2	4	42	.20	.131	11	26	.55	137	.13	9	4.17	.01	.10	1	1
1+00N 9+00W	2	20	17	232	.7	33	13	1842	3.08	13	5	ND	1	23	2	2	2	44	.16	.166	12	30	.55	192	.11	5	3.05	.01	.10	1	2
1+00N 8+50W	1	20	27	193	.4	92	25	1486	5.00	10	5	ND	5	50	2	2	10	96	.37	.095	19	119	2.25	464	.27	6	3.41	.02	.33	1	1
1+00N 8+00W	2	27	33	178	.2	35	13	605	3.76	16	5	ND	5	12	1	2	2	55	.10	.150	17	34	.75	94	.12	13	3.22	.01	.16	1	8
1+00N 7+50W	2	29	29	172	.2	30	11	650	3.87	17	5	ND	4	11	1	2	4	54	.10	.156	14	30	.67	96	.11	12	3.33	.01	.11	1	2
1+00N 7+00W	3	27	28	291	.4	63	15	697	3.95	28	5	ND	4	11	1	2	3	51	.10	.265	12	43	.56	91	.09	2	3.52	.01	.09	1	4
1+00N 6+50W	2	23	30	149	1.0	28	11	589	3.50	23	6	ND	6	9	1	6	2	49	.08	.126	11	23	.40	95	.12	8	4.20	.01	.07	1	6
1+00N 6+00W	2	34	37	213	.4	39	11	326	4.49	36	5	ND	9	8	1	2	2	44	.06	.105	15	32	.55	83	.05	8	4.37	.01	.08	3	8
1+00N 5+50W	2	27	23	251	1.7	30	11	915	2.88	17	5	ND	6	9	2	2	4	44	.07	.109	12	21	.37	119	.12	9	4.14	.01	.06	1	3
1+00N 5+00W	3	28	26	251	1.0	27	8	898	2.69	16	5	ND	6	7	1	4	2	41	.05	.164	9	17	.31	68	.11	10	4.96	.01	.05	2	1
1+00N 4+50W	2	19	24	200	1.0	16	9	347	3.12	14	5	ND	5	11	2	2	2	43	.09	.197	5	16	.19	64	.12	5	5.94	.01	.04	2	2
1+00N 4+00W	5	26	33	272	.8	27	9	370	3.41	21	5	ND	6	8	1	2	2	50	.06	.149	9	21	.30	81	.11	6	5.18	.01	.06	1	1
1+00N 3+50W	5	31	36	523	.8	52	12	428	3.61	23	5	ND	6	15	3	2	11	54	.14	.100	13	30	.62	137	.09	13	3.80	.01	.09	2	4
1+00N 3+00W	3	39	34	331	.8	42	14	1253	3.45	18	7	ND	5	21	4	2	2	51	.27	.121	32	29	.68	103	.11	2	3.44	.01	.11	2	3
1+00N 2+50W	3	29	33	312	.4	32	13	982	3.23	19	6	ND	5	20	2	2	4	48	.27	.131	17	25	.60	151	.11	7	3.32	.01	.10	1	2
1+00N 2+00W	2	24	30	287	.5	29	11	1541	3.07	18	5	ND	5	15	3	2	8	45	.14	.172	13	23	.44	198	.13	4	4.36	.01	.07	1	1
STD C/AU-S	18	59	42	132	6.7	67	31	1012	4.03	43	19	7	38	49	18	15	22	59	.48	.095	39	57	.86	174	.06	35	1.99	.06	.13	13	51

## ERIC DENNY FILE # 89-4903

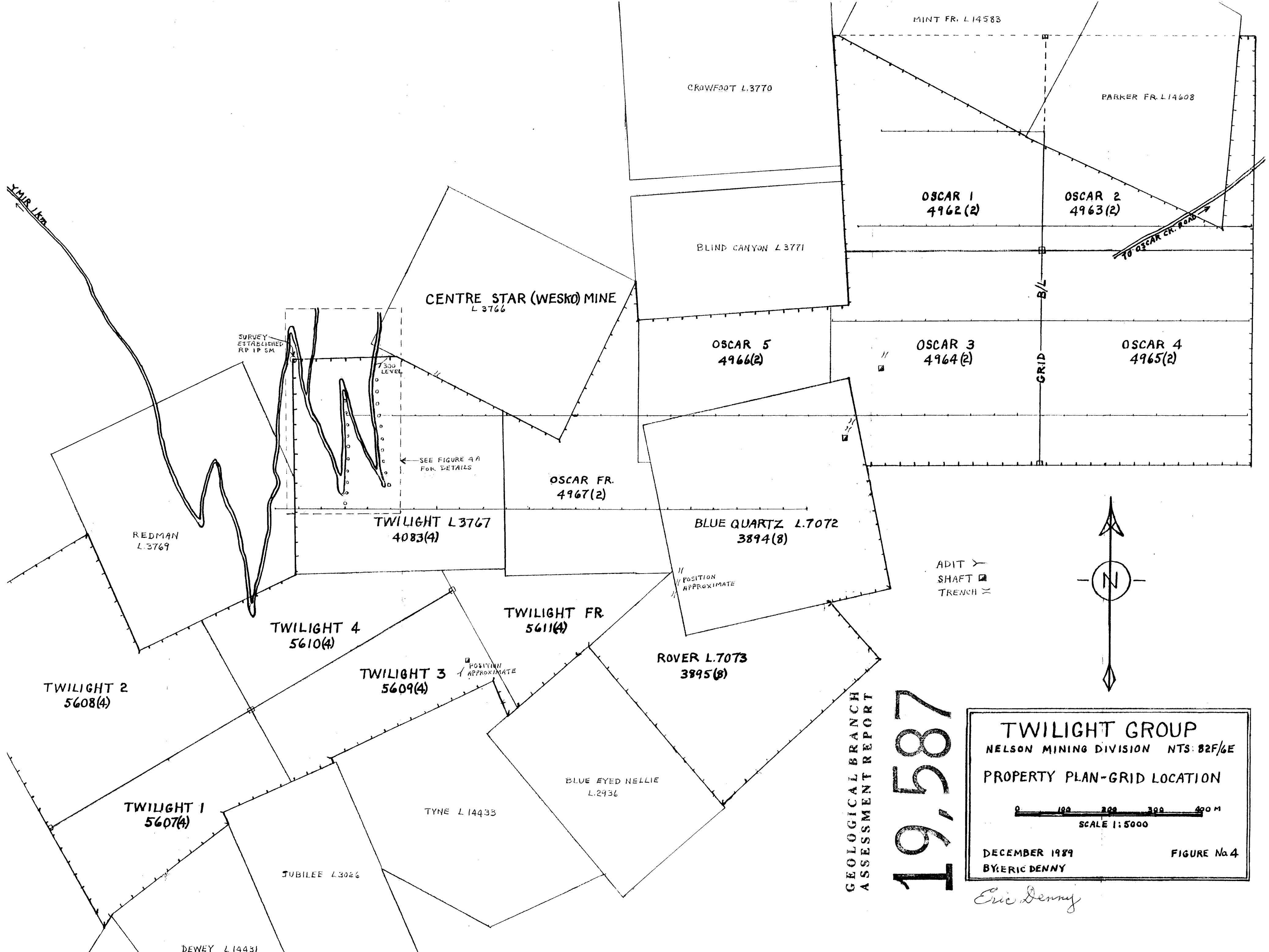
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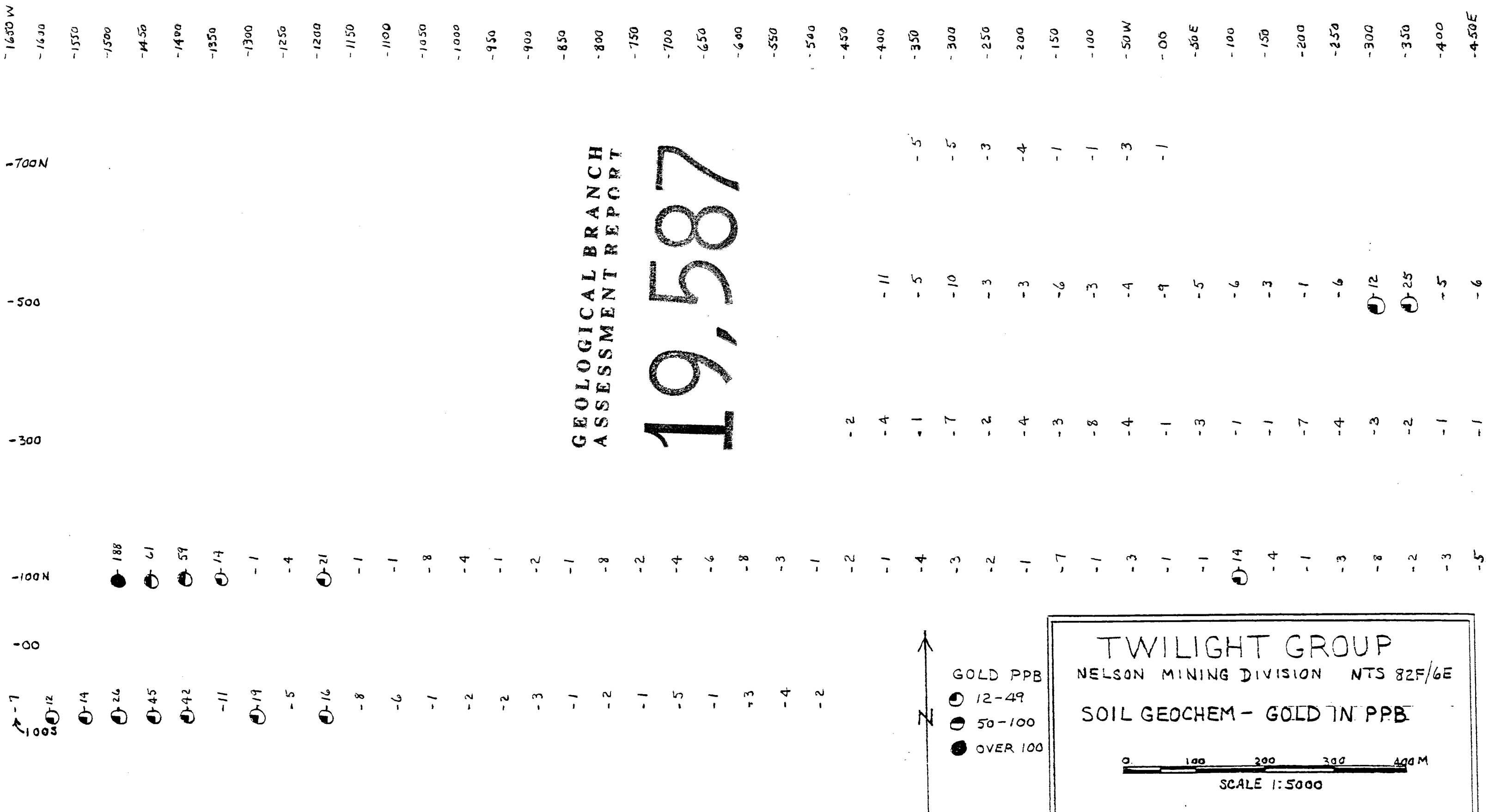
SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
1+00N 1+50W	2	21	33	230	.7	32	9	263	3.18	15	5	ND	5	9	1	3	2	45	.09	.088	15	25	.53	129	.09	3	3.97	.01	.09	1	7
1+00N 1+00W	1	16	18	181	.4	16	8	846	2.52	10	5	ND	2	21	1	2	2	36	.24	.119	9	17	.27	135	.12	2	3.74	.01	.05	1	1
1+00N 0+50W	1	17	18	155	.5	15	7	326	2.36	6	5	ND	3	13	1	2	2	32	.14	.126	10	16	.29	123	.10	3	4.25	.01	.04	1	3
1+00N 0+00	1	9	22	169	.4	12	7	1347	2.51	8	5	ND	2	13	1	2	2	36	.11	.083	10	15	.25	160	.10	2	2.70	.01	.05	1	1
1+00N 0+50E	1	16	18	168	.3	11	6	2659	2.23	6	5	ND	1	19	1	2	2	34	.15	.195	7	11	.14	232	.12	3	2.97	.02	.05	1	1
1+00N 1+00E	1	11	22	103	.2	8	6	2158	2.09	6	5	ND	1	14	1	4	2	34	.12	.091	8	11	.15	110	.09	2	2.17	.01	.04	1	14
1+00N 1+50E	1	23	20	221	.4	26	10	6212	2.55	20	5	ND	1	12	2	3	2	33	.11	.174	11	18	.20	249	.08	2	2.53	.01	.06	1	4
1+00N 2+00E	1	23	25	172	.3	24	13	1918	2.97	14	5	ND	1	23	1	2	2	32	.26	.111	13	19	.24	157	.08	2	2.62	.01	.06	1	1
1+00N 2+50E	1	24	28	112	.5	27	15	1077	3.24	9	5	ND	1	22	1	3	2	32	.21	.069	18	17	.27	78	.07	2	3.13	.01	.05	1	3
1+00N 3+00E	1	20	26	135	.8	21	12	2290	2.78	9	5	ND	4	14	1	2	2	34	.13	.114	13	17	.29	124	.08	2	2.52	.01	.07	1	8
1+00N 3+50E	1	26	21	135	.3	39	8	334	3.45	16	5	ND	2	12	1	2	2	23	.08	.088	25	21	.29	97	.03	3	2.39	.01	.05	1	2
1+00N 4+00E	1	18	17	109	.3	16	8	666	2.72	5	5	ND	5	12	1	2	2	34	.10	.117	13	17	.27	107	.09	7	3.40	.01	.05	1	3
1+00N 4+50E	1	15	28	115	.1	18	9	806	4.52	13	5	ND	5	12	1	5	2	44	.10	.193	17	26	.38	64	.07	2	2.20	.01	.08	1	5
1+00S 16+50W	1	33	87	192	.3	29	13	1541	3.06	6	5	ND	2	42	5	2	2	40	.39	.120	17	26	.72	207	.11	9	4.00	.01	.17	1	7
1+00S 16+00W	1	36	100	187	.4	28	13	1824	3.13	7	5	ND	3	51	5	2	2	42	.38	.087	16	27	.78	251	.13	2	4.14	.01	.19	1	12
1+00S 15+50W	1	54	89	315	.6	39	16	1240	3.65	18	5	ND	4	24	4	3	3	45	.21	.095	18	32	.93	189	.11	6	3.91	.01	.22	1	14
1+00S 15+00W	1	24	100	382	.5	28	10	973	2.98	17	5	ND	3	58	7	2	4	34	.58	.316	14	20	.48	259	.13	2	4.13	.02	.13	1	26
1+00S 14+50W	1	25	71	437	.8	28	14	1463	3.78	25	5	ND	4	63	7	3	4	47	.62	.091	29	36	.66	229	.13	2	4.14	.02	.23	1	45
1+00S 14+00W	1	24	116	326	.6	26	12	567	3.57	37	5	ND	5	40	3	3	2	43	.45	.131	20	25	.69	185	.11	8	4.01	.01	.20	1	42
1+00S 13+50W	1	26	69	334	.5	39	15	1662	3.54	123	5	ND	2	56	4	2	2	36	.47	.301	23	23	.57	319	.10	8	4.09	.01	.17	1	11
1+00S 13+00W	3	33	67	343	.5	47	20	2958	3.91	80	5	ND	3	45	4	2	3	52	.39	.130	22	30	.90	225	.13	2	3.69	.01	.19	1	19
1+00S 12+50W	1	31	31	177	.4	31	14	1861	3.11	20	5	ND	2	61	2	2	2	44	.44	.103	15	29	.74	342	.13	3	3.26	.01	.17	1	5
1+00S 12+00W	1	34	34	182	.4	49	21	1267	3.64	28	5	ND	3	54	2	2	2	49	.38	.089	23	42	1.14	234	.14	5	3.93	.01	.23	1	16
1+00S 11+50W	2	38	25	170	.5	47	16	1867	3.65	19	5	ND	3	67	1	2	2	46	.44	.076	19	31	.76	249	.14	2	4.00	.01	.17	1	8
1+00S 11+00W	1	36	26	153	.6	50	15	1076	3.37	14	5	ND	4	56	1	2	2	40	.39	.147	20	41	.85	267	.09	2	2.63	.01	.23	1	6
1+00S 10+50W	2	37	31	370	.5	65	16	3215	3.70	18	5	ND	2	56	4	2	2	45	.41	.098	25	36	.69	295	.12	7	3.13	.01	.14	1	1
1+00S 10+00W	1	26	22	139	.3	38	14	1297	3.10	7	5	ND	3	23	1	2	2	45	.17	.096	14	36	.77	128	.13	2	3.47	.01	.17	1	2
1+00S 9+50W	1	21	24	191	.5	42	13	1402	2.90	7	5	ND	4	32	2	5	2	42	.30	.163	12	30	.65	194	.12	2	3.17	.01	.15	1	2
1+00S 9+00W	1	20	30	245	.5	32	10	1559	2.61	10	5	ND	3	47	3	2	4	38	.33	.205	10	22	.43	307	.12	2	3.33	.02	.13	1	3
1+00S 8+50W	1	21	88	304	2.2	30	11	1407	2.77	16	5	ND	4	20	4	2	2	41	.14	.137	11	22	.41	165	.11	2	3.33	.01	.09	1	1
1+00S 8+00W	2	28	26	331	.9	51	11	498	3.03	17	5	ND	5	28	4	2	2	48	.20	.097	13	38	.74	194	.12	5	3.51	.01	.13	1	2
1+00S 7+50W	2	26	45	303	1.4	51	12	1973	3.03	16	5	ND	1	24	4	2	2	41	.16	.270	12	35	.42	238	.10	2	2.86	.01	.07	1	1
1+00S 7+00W	2	23	28	308	2.3	62	13	1314	3.17	31	5	ND	3	24	2	2	2	39	.23	.276	12	34	.37	210	.07	2	3.32	.01	.08	1	5
1+00S 6+50W	2	27	22	246	1.5	48	13	632	3.09	25	5	ND	4	14	2	2	2	39	.11	.158	11	34	.50	121	.09	3	4.09	.01	.07	1	1
1+00S 6+00W	1	14	62	248	1.8	30	9	1121	2.56	15	5	ND	3	17	2	2	2	32	.14	.172	9	14	.21	146	.11	6	4.93	.01	.05	1	3
1+00S 5+50W	2	18	27	179	.6	30	9	981	2.56	18	5	ND	3	13	2	2	2	35	.08	.093	9	16	.25	127	.10	7	3.29	.01	.06	1	4
1+00S 5+00W	3	26	43	299	.8	39	11	710	3.03	16	5	ND	4	10	3	2	3	39	.07	.112	14	22	.42	133	.08	2	3.29	.01	.08	1	2
STD C/AU-S	18	58	36	132	7.0	66	30	1015	4.09	42	18	7	39	49	19	16	22	59	.49	.095	40	56	.87	175	.06	36	1.98	.06	.13	13	51

## ERIC DENNY FILE # 89-4903

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SAMPLE#	Mo PPM	Cu PPM	Pb PPM	Zn PPM	Ag PPM	Ni PPM	Co PPM	Mn PPM	Fe %	As PPM	U PPM	Au PPM	Th PPM	Sr PPM	Cd PPM	Sb PPM	Bi PPM	V PPM	Ca %	P %	La PPM	Cr PPM	Mg %	Ba PPM	Ti %	B PPM	Al %	Na %	K %	W PPM	Au* PPB
TW1-1	2	120	445	1568	2.9	141	36	6402	4.69	31	5	ND	1	61	29	2	2	52	.41	.170	25	36	.88	201	.09	2	4.51	.01	.16	2	99
TW1-2	3	78	116	686	.9	126	28	8757	4.62	26	5	ND	1	87	14	2	3	38	.94	.195	23	24	.59	242	.08	4	3.52	.01	.16	1	9
TW1-3	1	40	132	422	.1	56	17	2633	3.30	15	5	ND	1	77	9	2	2	41	.81	.103	18	27	.76	252	.10	7	3.24	.01	.20	1	1
TW1-4	1	37	164	457	.3	41	15	2160	3.25	20	5	ND	2	48	9	2	4	42	.39	.116	17	29	.78	261	.10	2	3.19	.01	.18	1	40
TW1-5	1	31	892	454	.7	27	13	1984	3.14	18	5	ND	2	56	9	2	2	40	.62	.176	16	25	.65	391	.12	2	3.40	.01	.18	1	34
TW1-6	1	22	126	419	.3	24	10	2038	2.88	18	5	ND	2	63	9	2	2	32	.51	.368	15	19	.46	392	.12	4	3.19	.02	.15	1	2
TW1-7	1	18	144	470	.1	26	10	3233	2.64	14	5	ND	1	60	15	2	4	32	.66	.259	15	19	.48	416	.11	2	3.15	.01	.16	1	6
TW1-8	1	18	64	465	.1	23	11	5201	2.83	23	5	ND	1	65	10	2	2	31	.53	.440	14	18	.40	628	.12	5	3.38	.02	.16	1	1
TW1-9	1	32	66	282	.3	45	13	782	3.54	30	5	ND	6	37	3	2	2	44	.42	.197	23	42	.78	219	.14	4	4.60	.01	.19	1	1
TW1-10	1	24	67	274	.1	29	15	3260	3.57	12	5	ND	1	63	4	2	2	47	.62	.208	15	45	.88	435	.11	3	3.23	.01	.23	1	2
TW1-11	1	24	116	579	.1	39	13	4635	2.49	13	5	ND	1	115	21	2	2	28	1.12	.233	12	15	.36	344	.09	5	2.86	.02	.13	2	4
TW1-12	1	40	59	359	.1	47	17	3859	3.26	12	5	ND	1	49	10	2	6	41	.39	.123	18	26	.66	359	.11	2	3.52	.01	.15	1	5
TW1-13	1	45	142	498	.3	41	19	3770	3.40	36	5	ND	2	65	18	2	2	42	.47	.103	18	25	.69	366	.13	2	3.86	.01	.19	1	6
TW1-14	1	37	181	333	.1	28	15	6693	2.79	13	5	ND	1	100	21	2	2	37	.85	.138	16	25	.66	589	.10	2	2.83	.01	.23	1	18
TW1-15	1	38	87	241	.3	35	15	2581	3.27	15	5	ND	2	52	7	4	5	43	.43	.097	15	29	.76	304	.12	4	3.49	.01	.18	1	6
TW1-16	1	32	101	223	.1	37	16	2008	3.03	13	5	ND	2	60	4	2	2	41	.46	.104	15	26	.69	228	.11	2	3.13	.01	.19	1	3
TW1-17	1	31	118	341	.4	64	20	5235	3.44	21	5	ND	3	79	8	2	2	42	.66	.181	18	29	.60	363	.11	2	3.34	.01	.17	1	4
TW1-18	1	31	74	244	.1	35	16	1897	3.29	19	5	ND	3	41	4	3	3	41	.34	.157	16	31	.79	258	.10	6	2.91	.01	.23	1	1
TW1-19	1	17	53	182	.2	24	11	1135	2.77	11	5	ND	4	57	3	3	2	37	.41	.156	17	24	.60	193	.10	2	2.97	.01	.18	1	27
TW1-20	1	39	46	200	.6	40	15	1145	3.33	19	5	ND	3	82	3	5	5	43	.46	.252	19	33	.76	267	.09	3	3.38	.01	.26	1	12
STD C/AU-S	18	57	37	132	6.7	67	30	1020	4.02	40	20	7	38	49	19	15	23	59	.48	.095	40	58	.86	178	.06	33	1.95	.06	.13	12	51





GEOLOGICAL BRANCH  
ASSESSMENT REPORT

19,587

TWILIGHT GROUP  
NELSON MINING DIVISION NTS 82F/6E  
SOIL GEOCHEM - GOLD IN PPB

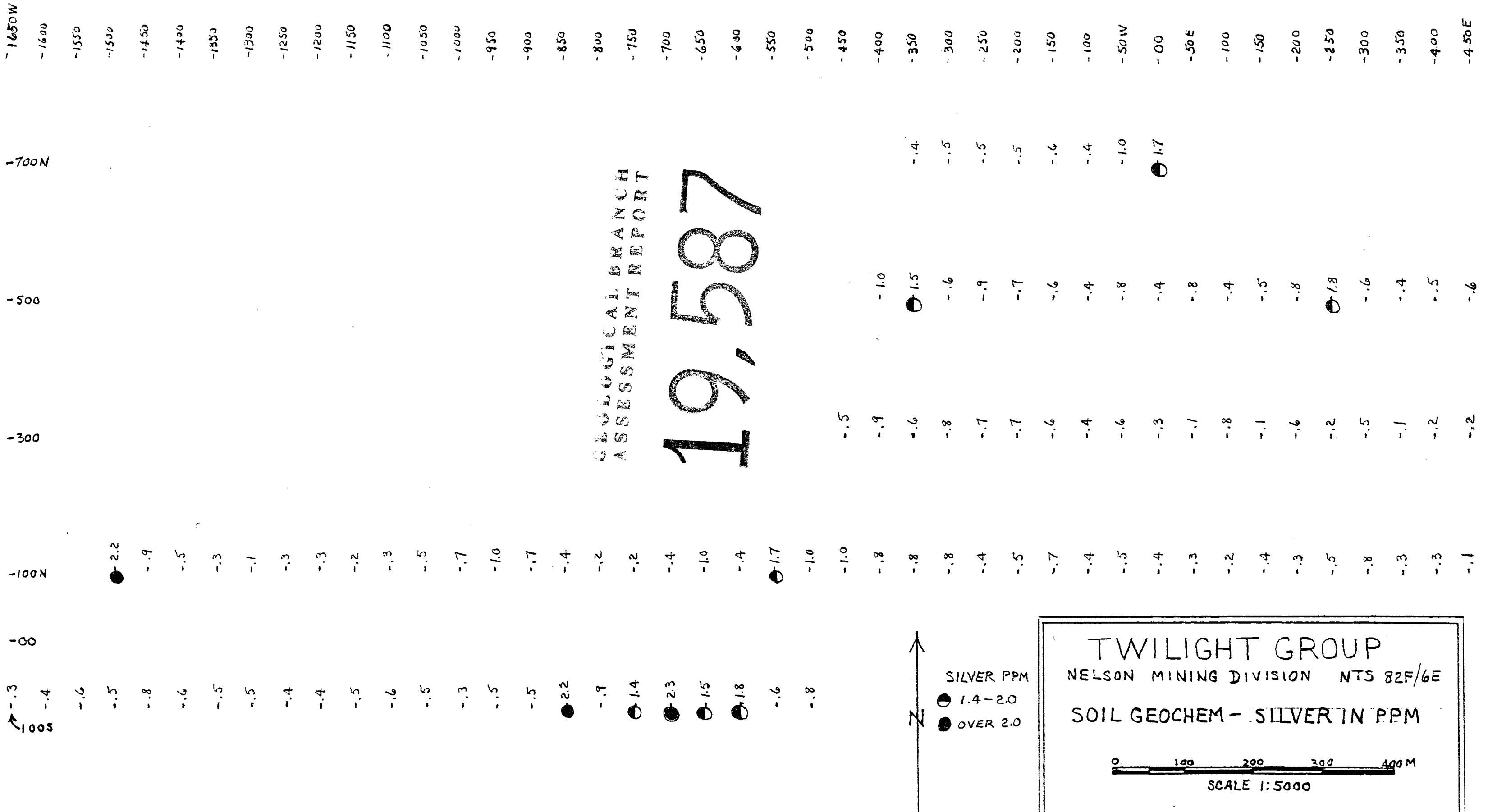
0 100 200 300 400 M  
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DECEMBER 1989  
BY: ERIC DENNY

FIGURE No.5

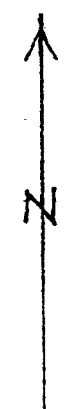
*Eric Denny*





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19,587



SILVER PPM  
 ● 1.4-2.0  
 ○ OVER 2.0

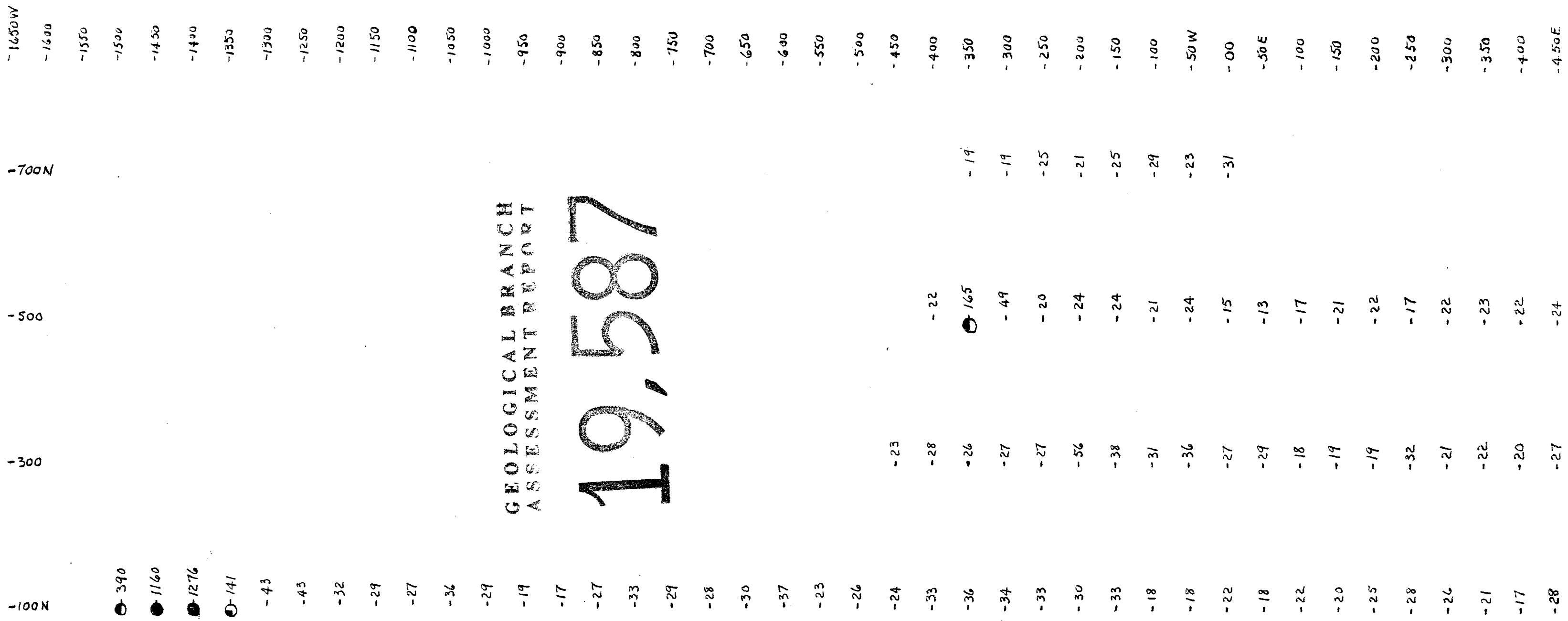
TWILIGHT GROUP  
 NELSON MINING DIVISION NTS 82F/6E  
 SOIL GEOCHEM - SILVER IN PPM

0 100 200 300 400 M  
 SCALE 1:5000

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*Eric Denny*

FIGURE No.6



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# 19,587



- LEAD PPM
- 60-149
  - 150-499
  - 500-1000
  - OVER-1000

TWILIGHT GROUP  
NELSON MINING DIVISION NTS 82F/6E

SOIL GEOCHEM - LEAD IN PPM.

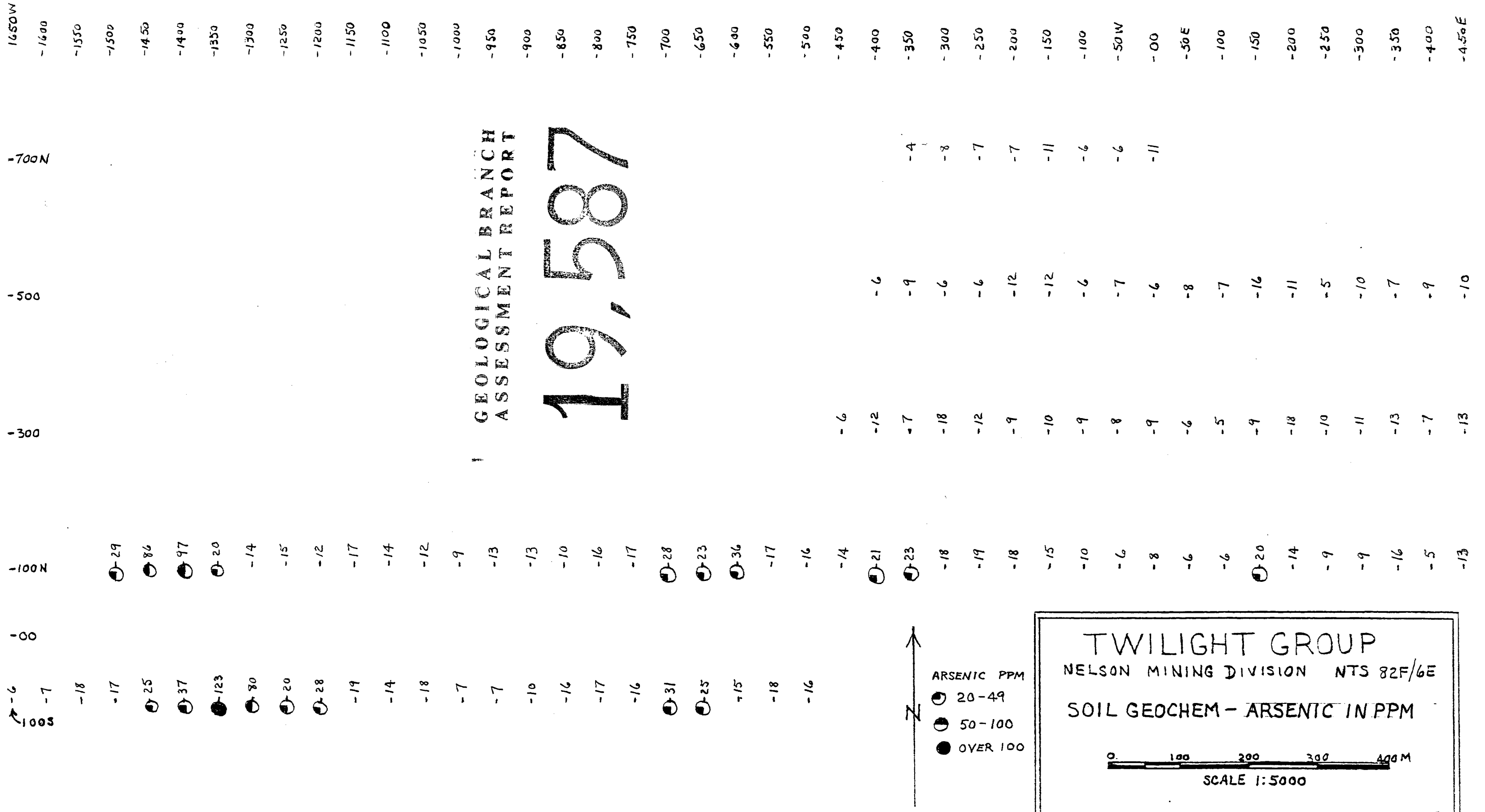
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FIGURE No.7

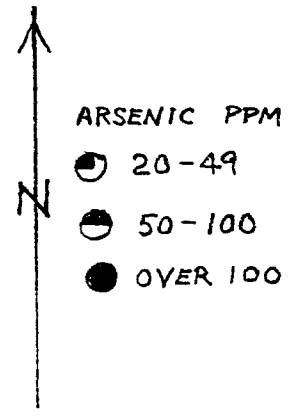
*Eric Denny*





GEOLOGICAL BRANCH  
ASSESSMENT REPORT

19,587



TWILIGHT GROUP  
NELSON MINING DIVISION NTS 82F/6E  
SOIL GEOCHEM - ARSENIC IN PPM

SCALE 1:5000

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FIGURE No.9

*Eric Denny*