Electromagnetic Report

on the

SHALE-RENO-FRED Mineral Claims

NTS 105 G-14

131°12' Longitude : 61°47' Latitude

by

A. CARLOS

December 1, 1977 to June 30, 1978

090382

This report has been examined by the Geological Evaluation Officer and recommended to the Commissioner to be considered as representation work to the amount of $14763.50

Resident Geologist
Resident Mining Engineer

Considered as representation work under Section 63 (4) Yukon Quartz Mining Act.

B.R. BAXTER
Supervising Mining Recorder

Commissioner of Yukon Territory

C O N T E N T S

List of Illustrations

PERSONNEL EMPLOYED:

Mr. A. Carlos,
13 Asp Street,
Whitehorse, Yukon.

Mr. S. Presunka,
Whitehorse, Yukon.

Mr. P. Presunka,
Whitehorse, Yukon.

INTRODUCTION

An EM-16 survey over the entire grid was conducted in late 1977 in an initial attempt at evaluation. Following a diamond drill hole to test a gravity feature, Mr. Steve Presunka was employed in order to more precisely locate near-surface conductors within the broad gravity.

PROPERTY

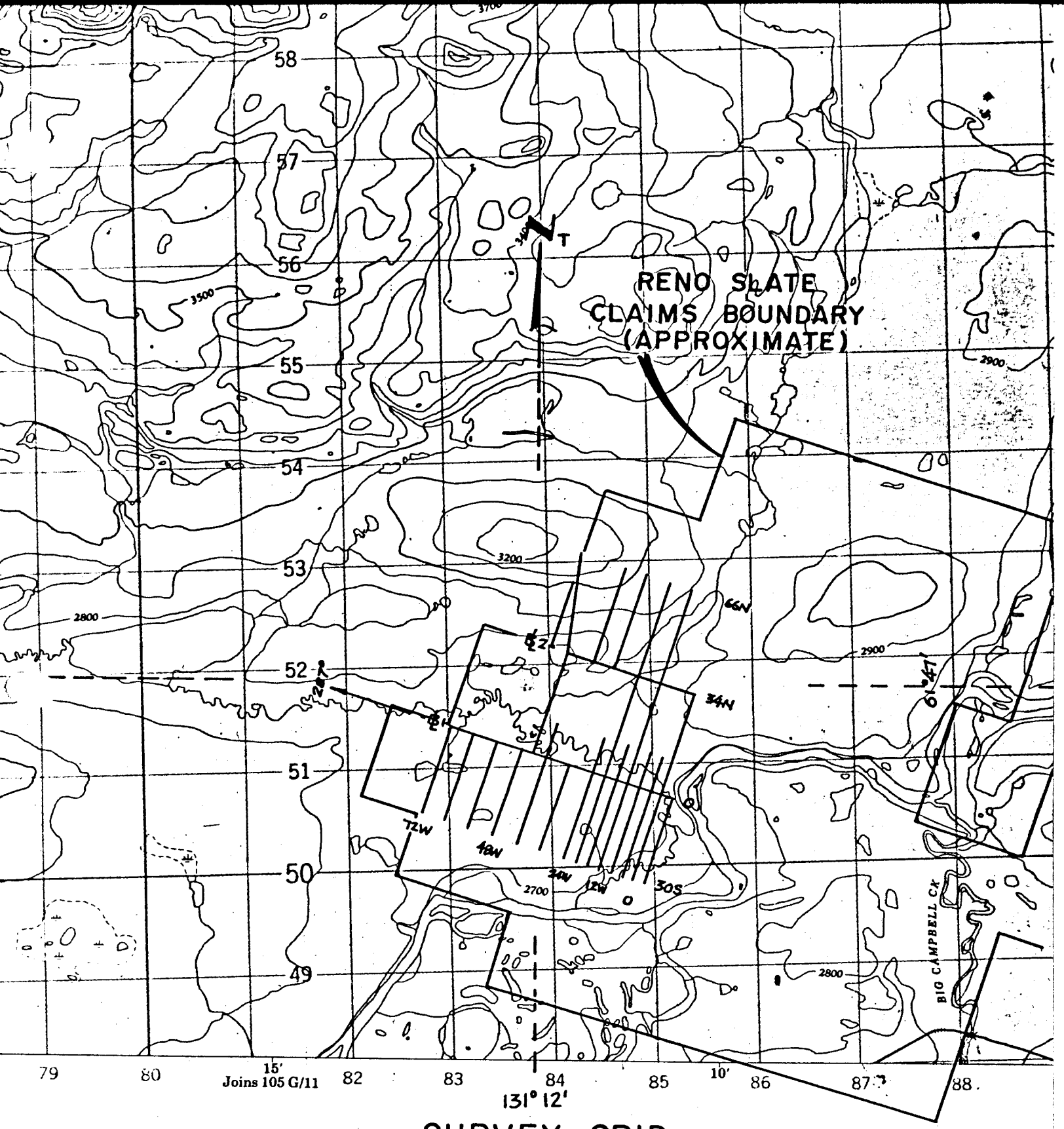
The property consists of 151 contiguous mineral claims, as follows:

Claim Name	Record Number
SHALE 1-48	YA12317 - YA12356
SHALE 49-51	YA12576 - YA12578
SHALE 53-64	YA12580 - YA12591
SHALE 65-70	YA12720 - YA12725
SHALE 71-82	YA26393 - YA26404
RENO 1-42	YA26449 - YA26490
RENO 43-44	YA26925 - YA26926
RENO 45-62	YA28253 - YA28270
RENO 63-66	YA28620 - YA28623
FRED 1-4	YA26405 - YA26408

The holder of the above claims is:

Pelly Banks Syndicate,
13 Aspen Drive,
Whitehorse, Yukon.

All work on the claim was done for Pelly Banks Syndicate.



SURVEY GRID
YUKON TERRITORY LOCATION MAP
FIG. 2

Scale 1:50,000 Échelle

0 1 2 3 Miles

0 1000 2000 3000 4000 Mètres

0 1000 2000 3000 4000 Verges

This Provisional Map is equivalent to a standard map in accuracy of content

Some names on this map are not yet official. Corrections or additions are invited by the Surveys and Mapping Branch.

CONTOUR INTERVAL 100 FEET

Elevations in feet above Mean Sea Level

Refer to this map as:	105 G/14 EDITION 1 MCE SERIES A 722

REGIONAL GEOLOGY

Underlying rock units consist principally of graphitic phyllite and quartz-sericite chlorite phyllite.

GEOPHYSICAL SURVEY

(a) General

The initial EM-16 survey was run using station 17.8 - CUTLER, MAINE. Readings taken along the direction of the existing grid were almost normal to the transmitting station.

S. Presunka later did detail V.L.F. work within a limited area of the property.

A Ronka EM-17 horizontal loop survey was also performed over a long conductive zone of V.L.F. station 17.8 - discovered in the initial survey.

Following are interpretations and recommendations as presented by S. Presunka.

PELLY BANKS SYNDICATE

Reno Shale Claims Area - Pelly River
Watson Lake District, Yukon Territory

Electromagnetic Interpretation:
Instrument: Ronka E.M.16 V.L.F.ST.17.8
Operator: Al Carlos
Interpretation: S. Presunka

There are four conductive zones, which are listed A, B, C and D. The "A" zone is a good conductor - it lies in the centre of a strong gravity anomaly. This conductor has a good reverse in-phase quadrature polarity, indicating a good chance of a sulphide occurrence, and it extends from L-36W to L-12W for a length of some 2400 feet. This conductive zone, as suggested by E.M.16 results, dips to the north. Depth to the conductor on L-32W, some 250 feet south of the base line, is approximately 225 feet. This is a prime drill target.

A proposed D.D.H. spotted some 175 feet south of the base line and drilled -60 south, to a depth of 225 feet (25 meters), would intercept the conductive zone. A second proposed D.D.H. spotted on L-20W some 525 feet south of the base line and drilled -60 south, to a depth of 175 feet, should intercept this conductive zone. There is no way of determining the width of the conductor from the V.L.F. results.

"B" zone, which extends from L-12W to L-0 north of the base line, is likely due to a combined graphite sulphide zone. There is a suggestion of an N.S. fault between Lines 0 and 4E terminating the extension to the east of this conductor. This N.S. fault is suspected to be mineralized. This area should be detailed by E.M.16 using V.L.F. ST.18.6 (Seattle) in E/W direction.

"C" zone extends from L-12W some 2100 feet south of the base line, crosses L-4E at 1600 feet south and continues off the grid in an easterly direction. This conductor is likely due to a graphitic shear.

"D" zone, south of the base line, is due likely to a graphitic shear and is probably mineralized.

I would suggest doing a horizontal loop survey of the "A" zone to determine the width of the conductor.

Steve Presunka

Signed: "Steve Presunka"

Date: June 20th, 1978.

Electromagnetic Survey
Instrument: Ronka EM-16, Serial No: 2

The lines were run chain and compass in EW direction (parallel to the base line). The readings were taken every 50 feet along the lines. The cross-overs were marked by red flagging in cross fashion wherever they occurred. The results of VLF St. 17.8 are contoured only, while the results of VLF St. 23.4 are profiled and contoured. The three plans submitted are on a scale of 1 inch to 200 feet. The conductive zones are indicated by a heavy line with converging little arrows.

Plan #1, Ronka EM-16, VLF St. 17.8 main. S. Presunka and Paul Presunka:

"A" conductor is flanked by secondary conductors on either side, indicating the width of the conductive zone. This conductor follows L-4N for approximately 600 feet, then at 100 feet west swings in south direction, crossing L-2N at 20 feet east, where it is cut off by a fault. The width of the conductor on L-8W is approximately 300 feet; then the conductor seems to narrow down considerably at 350 feet east, and widens again, ending abruptly on L-0 some 30 feet east. The large, heavily mineralized boulder (lead zinc) found on the bank of a stream between lines 4S and 2S some 300 feet east likely comes from the south-east end of the "A" conductor (L-2N 20 feet E).

"B" conductor located on the north-east section of the plan is likely due to a broad fault. The general geological trend is in E-W direction as indicated by the contoured plan. The north-east section of the plan indicates a north-east trend (fault area).

Plan #2, VLF St. 23.4 - Hawaii - contoured plan:

The "A" conductors of both VLF stations are coincidental. The "A" and "C" conductor is faulted off by "B" conductor. This "B" conductive zone is shifted to the east as seen on Plan #1, suggesting an easterly dip to the fault. The "D" conductor is likely due to a shear.

Plan #3, VLF St. 23.4 - Hawaii - profiled plan - east half:

This profiled plan differed little from the contoured plan. The north-east striking fault is more clearly defined on the contoured plan. The proposed DDH on L-2N at 220 feet east and drilled -50W to a depth of 325 feet would intercept the conductor. This could be the area where the big mineralized boulder came from.

Plan #3, Horizontal Loop Survey - 300 feet cable separation - west half:

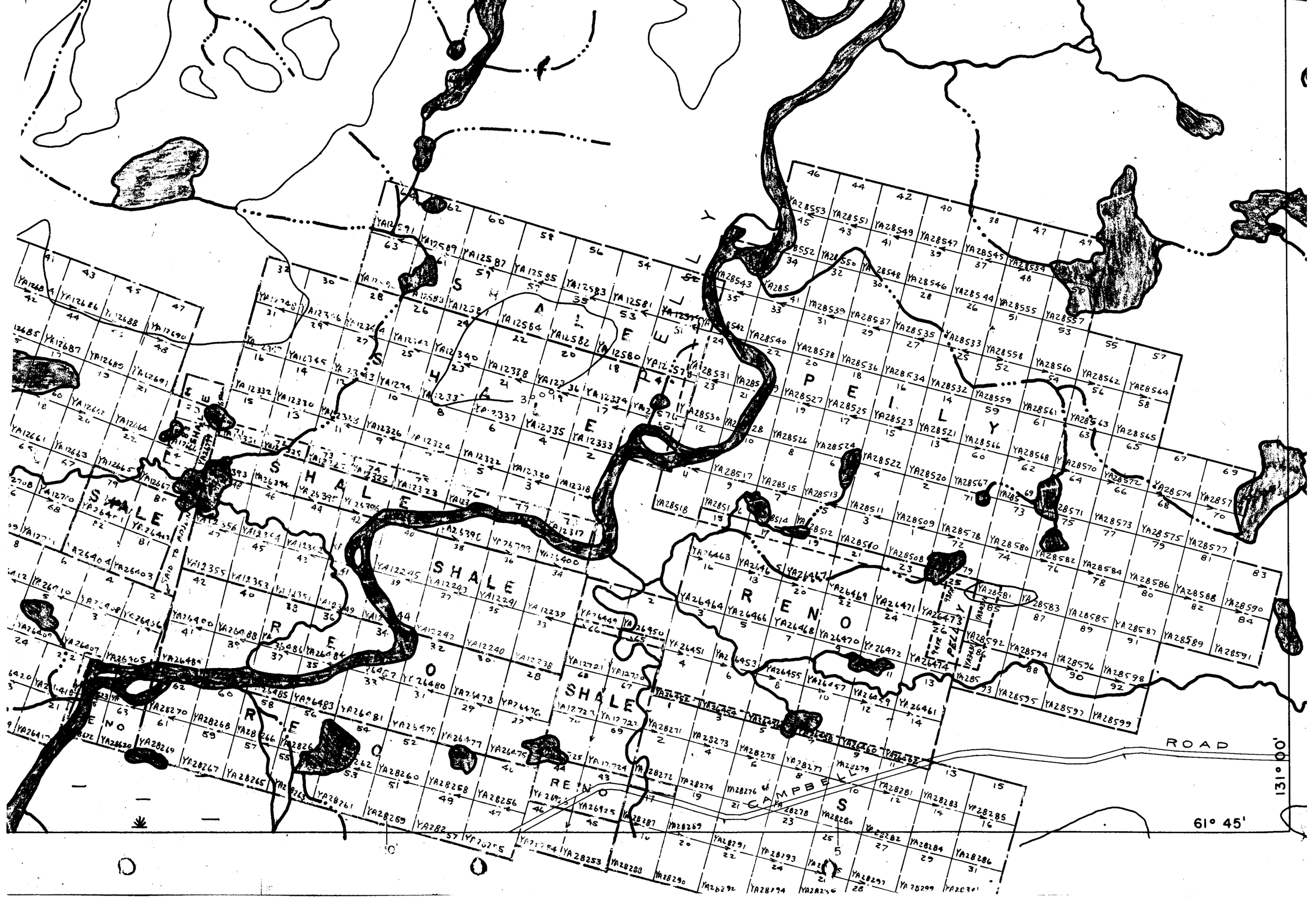
The horizontal loop survey was run from L-36W to 8W for a length of 2800 feet. The area surveyed was mostly south of the base line.

The long conductive zone of VLF St. 17.8 south of the base line responded strongly to the horizontal loop method using 300 cable separation. The width of this conductor as indicated by horizontal loop survey is from 130 to 185 feet. The proposed DDH on L-32W at 175 feet south of the base line and drilled -60°S to a depth of 225 feet would intercept the strong conductor. The second DDH should be drilled on line 16W some 650 feet south of the base line. This long conductor dips steeply to the north.

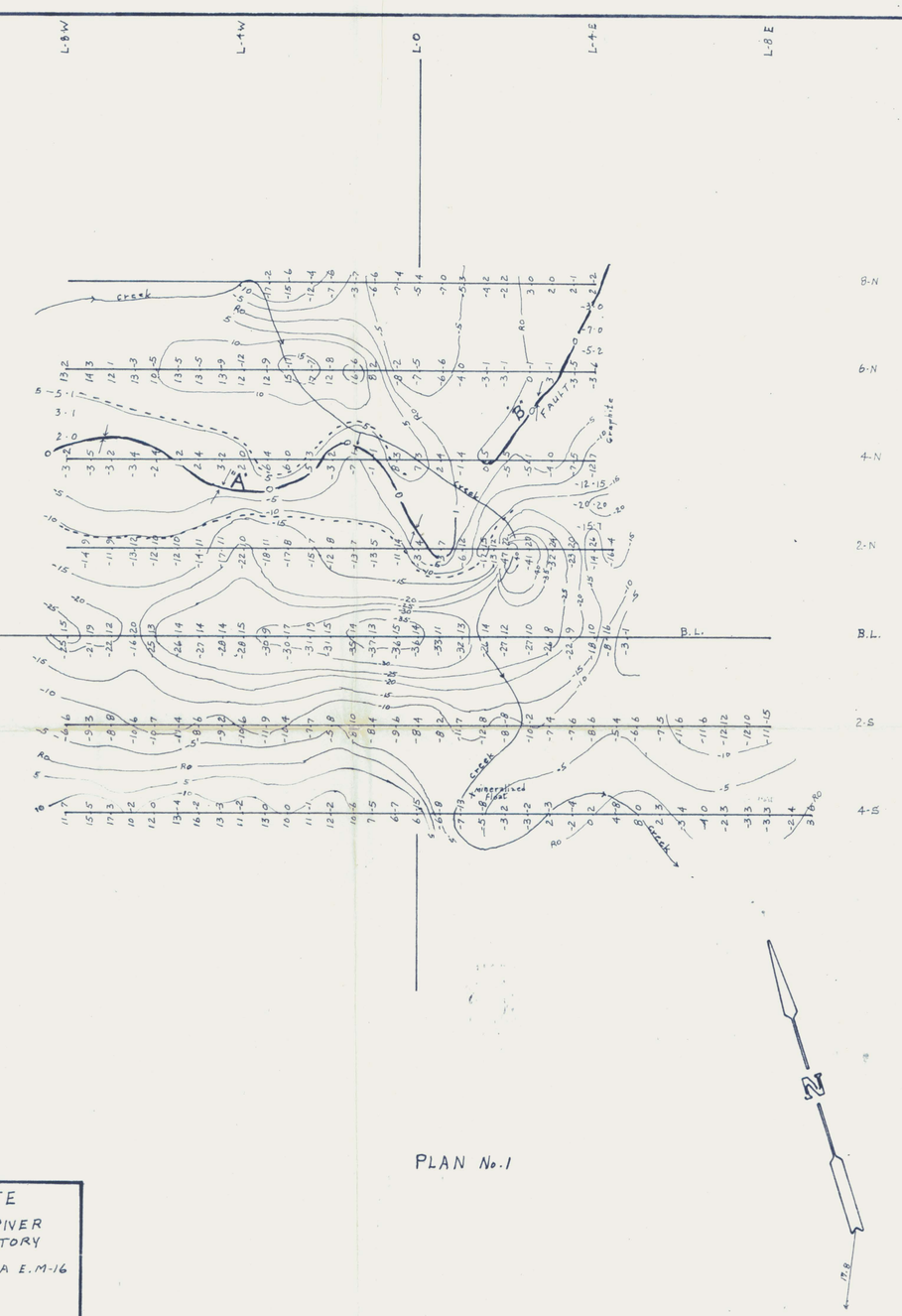
The broad conductor of horizontal loop survey on L-8W north of the base line is a good conductor and is a prime drill target. The "A" conductor of both VLF stations is coincidental with this horizongal loop anomaly. The proposed DDH spotted on L-8W at 520 feet south of the base line and drilled -60°S to a depth of 400 feet would cut the best zone of this conductor.

Lines 4W, 0 and 4E should have been run by horizontal loop, particularly line 4E, to confirm the indicated strong VLF conductor on line 4E north of the base line.

Steve Presunka


SHALE
RENO
PELLY
CAMPBELL
ROAD
131° 00'
61° 45'

090382



PLAN No.1

PELLY BANKS SYNDICATE

RENO, SHALE CLAIMS AREA - PELLY RIVER
WATSON LAKE DISTRICT YUKON TERRITORY

ELECTROMAGNETIC SURVEY: INST. RONKA E.M-16

V.L.F. ST. 17.8 MAINE U.S.A.

INPHASE CONTOUR INTERVAL 5 %

SCALE: 1"=200' JULY 2 1978
S. Presunka

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PELLY BANKS SYNDICATE

RENO, SHALE CLAIMS AREA - PELLY RIVER
WATSON LAKE DISTRICT, YUKON TERRITORY

ELECTROMAGNETIC SURVEY: INST. RONKA E.M-16

V.L.F. ST. 23.4 SEATTLE U.S.A.

INPHASE CONTOUR INTERVAL 5%

SCALE: 1" = 200' JULY 2 1978
S. Presunka

CONDUCTORS:

PLAN No. 2

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090392

L-36 W | L-32 W | L-28 W | L-24 W | L-20 W | L-16 W | L-12 W | L-8 W | L-0

8-N
6-N
4-N
2-N
B.L.
2-S
4-S

PROPOSED D.D.H. -60° S 400'

PROPOSED D.D.H. -60° 225'

PROPOSED D.D.H. -50° S 350'

PROPOSED D.D.H. -60° S 315'

creek

steep river bank

MINERALIZED BOULDER

heliport

"A"

"B"

"C"

HORIZONTAL LOOP SURVEY - 300' CABLE
INST. RONKA E.M-17. SER. No. 17
INPHASE PROFILE ——·——·—— } 1" = 40%
OUT OF PHASE - - - - - - - - - -

PLAN No.3

N

PELLY BANKS SYNDICATE
RENO, SHALE CLAIMS AREA - PELLY RIVER
WATSON LAKE DISTRICT YUKON TERRITORY

ELECTROMAGNETIC SURVEY : INST. RONKA E.M.16
INPHASE PROFILE ——·——·—— } 1" = 20%
QUADRATURE - - - - - - - - - -
CONDUCTIVE ZONES ——○——

SCALE : 1" = 200'

JULY 2 1978
S. Presunka

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"PELLY BANKS SYNDICATE"
cut lines + d.d.h. locations
relative to claim boundaries

POST LOC - ■

DDH LOC ⊕—

SCALE : 1" = 600'

287°

N

L44W

L36W

L28W

L20W

L12W

L0+00

L4E

BL-34N

BL-1

L48W

L72W

SHALE 16

SHALE 25

SHALE 71

SHALE 79

SHALE 82

SHALE 47

FRED 4

FRED 3

FRED 2

FRED 1

RENO 42

RENO 41

RENO 40

RENO 39

RENO 38

RENO 37

RENO 36

SR1 -90

SR2 -60

SR3 -60

SR4 -80

31 29 27 15 13 11 9 10 12 14

72 73 74 48 46 44 42 80 81 45 43 41 34 39 37 33

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131°12'

Magnetic 34°00'

To Leach Fault Czar Claims

Road

NAA 17.8

61°47'

EM 16
Scale: vert 1cm=20%
hor 1cm=100'

---- hor. loop

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X Graphitic O/C
Pelly River

Mineralized X Boulder

X O/C

GB 78-2

44 W — 36 W — 28 W — 20 W — 12 W

72 W — 64 W — 56 W — 48 W — 40 W — 32 W — 24 W — 20 W — 16 W — 12 W — 8 W — 4 W — 0 — 4 E

70 N — 65 N — 60 N — 55 N — 50 N — 45 N — 40 N — 34 N — 30 N — 25 N — 20 N — 15 N — 10 N — 5 N — 1' 0 — 5 S — 10 S — 15 S — 20 S — 25 S — 30 S

200 0 200 400 600
Feet

N.T.S. 105 G/14

PELLY BANKS SYNDICATE
RENO, SHALE CLAIMS AREA - PELLY RIVER
WATSON LAKE DISTRICT, YUKON TERRITORY

COMPLETE
BOUGUER GRAVITY
CONTOUR INTERVAL 0.20 MGAL
NON-LINEAR ELEVATION FACTOR

DWN. BY T.M.	C.A. AGER & ASSOC. SURREY B.C. CANADA	FIG. NO. 4
CHECKED		
DATE MAY, 1978		

TO ACCOMPANY REPORT TITLED
GRAVITY & MAGNETICS -
RENO, SHALE CLAIMS AREA
BY: C.A. AGER PhD, PEng.
DATED: MAY, 1978 PROJECT: PELLY BANKS SYNDICATE

Charles A. Ager