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Geological Report
on the
Prosperity, Porter IDAHO and Silverado Mines
Skeena Mining Division
British Columbia

55° 55' North Latitude

129° 58' West Longitude

for

Mr. W. R. Wheeler

W.G. STEVENSON & ASSOCIATE LIMITED

March 15, 1974

INTRODUCTION

Cassiar Consolidated Mines Ltd. owns a block of crown granted mineral claims in the Skeena Mining Division positioned over the old Prosperity, Porter Idaho, Silverado Mines.

At the request of Mr. Ray Wheeler Vice-President of Cassiar Consolidated Mines Ltd., I have studied the old maps and reports of these properties. Based on these maps, reports and data I have compiled 7 level plans and 6 geological cross sections to illustrate the mine workings, vein pattern, and assay results.

LOCATION AND ACCESS

The Prosperity, Porter Idaho and Silverado Mines are located 3 miles south east of Stewart on Mount Rainey. They are positioned from sea level to elevations in excess of 6000 feet.

During 1930, access was attained by tram line from sea level to the terminal at elevation of 5007 feet. The tram line has been abandoned and access is now by helicopter from Stewart.

HISTORY

Mr. Clay Porter organized the Porter Idaho Syndicate in 1923 and started work on the property in 1924.

Premier Gold Mining Co. acquired an interest in 1926 and constructed an aerial tram from sea level to the Prosperity No. 3 tunnel at 5007 feet elevation, a distance of 5 miles.

By 1930 the mines were in full production but low silver prices forced shut down on April 11, 1931.

Cassiar Consolidated Mines Ltd. acquired control in 1952 and rehabilitated some tunnels. Since 1963 a modest maintenance program has been accomplished.

GEOLOGY

The rocks within the claim block are a complex assemblage of volcanics, tuffs, breccias and conglomerates, sandstones siltstone and limestones part of the Hazelton group of Jurassic age. These rocks have been folded, fractured and intruded by hornblend diorite, granite, lamprophyre and syenite dikes, part of the Hyder quartz monzonite stock.

The volcanic-sedimentary series has been intersected by quartz bearing sulfide veins and fissure zones, which Dr. E. W. Groves reports have a frequency of 20 per hundred feet.

The surface of the north and northeasterly part of the property is masked by the Cambia snow field.

The Big Rig fault which strikes east west and dips steeply northerly intersects the D and Wake veins between elevations 4511 and 4222. A second east west fault has been mapped at the north end of the Prosperity workings.

MINERALIZATION

Mineralization within the property is associated with narrow sinuous quartz fissure veins varying from a few inches to several feet in width. The ore controls are still largely unknown but appear to form in areas where the vein has been slightly deformed. The ore shoots trend north to northwest and plunge 40-50° toward the north.

The maps and reports that I have studied show six vein and fissure zones which trend north or northwest and which dip toward the west. These will be described starting from the west:

1. No Name Vein

This vein has been drifted on from the Prosperity C tunnel at 5246 feet elevation. Mr. Ray Wheeler reports this drift was in ore throughout a length of 400 feet.

2. Prosperity 305 Vein

This vein is exposed on the surface at 5750' elevation and on the Prosperity No. 3 level at an elevation of 5085'. Production records show that 24,648 tons of material with a grade of 74 oz. silver/ton was produced from the Prosperity mine. Most of this came from stopes on the Prosperity Vein over a vertical range of 700 feet.

3. 304 (Blind) Vein

The 304 vein has been exposed on the surface at an elevation of 5400' and on the Prosperity No. 3 level at an elevation of 5085'. Some stoping has been accomplished over this 300 foot vertical range. Assays over 117 feet average 0.9' wide and 136 oz. Ag. per ton on the No. 3 main haulage level.

18.5 oz. over 6' width

4. D (303) Vein

The D vein is exposed on the surface at an elevation of 5272' and on the Prosperity No. 3 level at an elevation of 5085'. Stopping below the 5085' level has yielded 5256 tons of ore with a grade of 108 oz. silver per ton.

5. Wake Vein

This vein is exposed on the surface and was mined on the Wake Tunnel at an elevation of 4490'. The I tunnel level at an elevation of 4222' penetrated approximately 150 feet of ore grade material which was shipped to the smelter.

6. Angelo Vein

This vein is exposed only on the surface.

The frequency of veins reported by Groves (20 per 100 feet) suggests that channel sampling between veins on the 301 cross cut tunnel over a 1300 foot width should be accomplished.

While secondary enrichment may have enhanced the value of past production to 80 oz. silver per ton the lower values in the D zone more than 600 feet below the surface suggest little or no such enrichment.

CONCLUSIONS

1. Records in the B.C. Department of Mines show a past production from the Prosperity, 304 and D veins of 30,000 tons with an average grade of 100 oz. silver per ton.
2. Mineralization within these vein systems is exposed over a vertical range of 1600 feet.
3. The extension of mineralization to depth in these three veins has not been adequately explored.
4. Under date of March 7, 1965 Dr. A. C. Skerl has suggested that the D vein has a potential ore reserve of 600,000 tons with a grade of 13 ounces silver per ton above the 4222' elevation.
5. The No Name, Wake and Angelo Veins remain essentially untested.
6. While ore reserve estimates for veins other than the D have not been made, they hold important potential.
7. A channel sample should be taken between veins on the Prosperity No. 3 cross cut tunnel over a width of 1300 feet.

8. Detailed structural geological maps of the underground workings might reveal ore controls which would provide guidance for exploration.

9. I concur with the recommendations of Dr. A. C. Skerl under date of March 7, 1965 and Dr. W. R. Bacon under date of September 28, 1973 for exploration programs estimated to cost \$250,000 to \$300,000 to test this property.

RECOMMENDATIONS

Phase Number 1

1. Set up a camp on the property and map the geology in the underground workings.
2. Open up the Prosperity No. 3 tunnel (elevation 5085') and collect fresh samples across the 301 x-cut for a distance of 1300 feet.
3. Open up the I tunnel (elevation 4222') and drive northerly a distance of 360 feet to a position vertically below the 301 x-cut.
4. From this position on the I tunnel drive cross cuts S 65° W and N 65° E and cut out diamond drill stations.

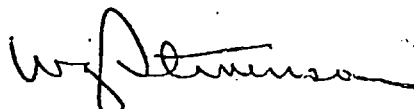
5. From these drill stations put in diamond drill holes to test for the downward extension of the "D" Vein and the Wake Vein.

Phase Number 2

Based on the results obtained during Phase Number 1, studies should be made for the feasibility of gaining access to this property from a long tunnel positioned on the west side of Mount Rainey at an elevation of 900 feet.

Respectfully submitted by:

W.G. STEVENSON & ASSOCIATES LIMITED



W.G. Stevenson, P.Eng.

Attachments:

1. 7 Plan Maps
2. 6 Cross Sections

Vancouver, British Columbia
April 4, 1974

22,000 E

5,800' Ele.

5,392' Ele.

5,246' Ele.

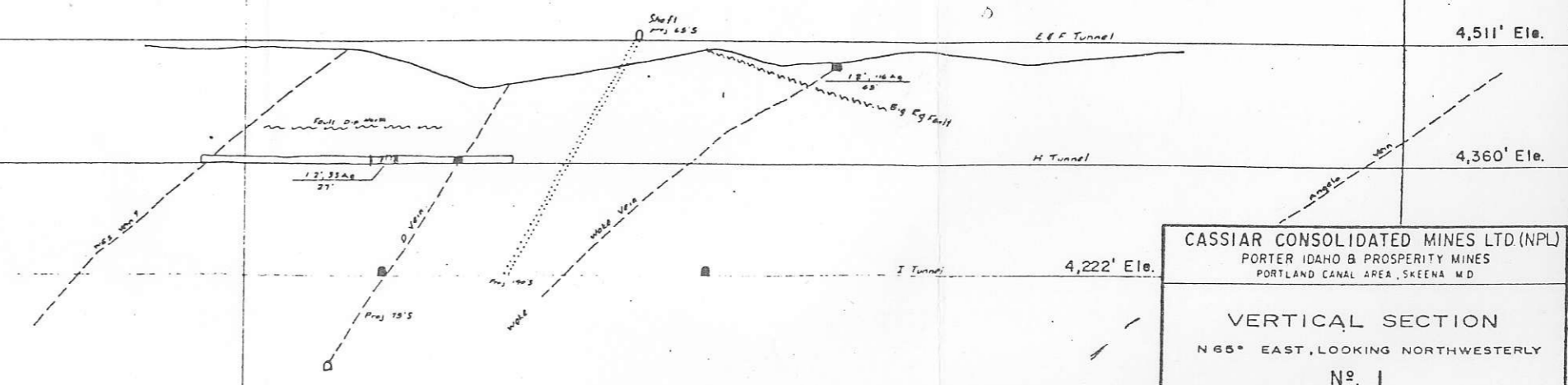
5,085' Ele.

4,691' Ele.

4,511' Ele.

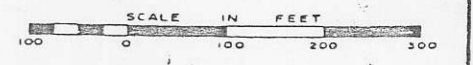
4,360' Ele.

4,222' Ele.



CASSIAR CONSOLIDATED MINES LTD (NPL)
 PORTER IDAHO & PROSPERITY MINES
 PORTLAND CANAL AREA, SKEENA M.D.

VERTICAL SECTION
 N 65° EAST, LOOKING NORTHWESTERLY
 No. 1



W G Stevenson & Associates Feb 1974

22,000 E

5,800' Ele.

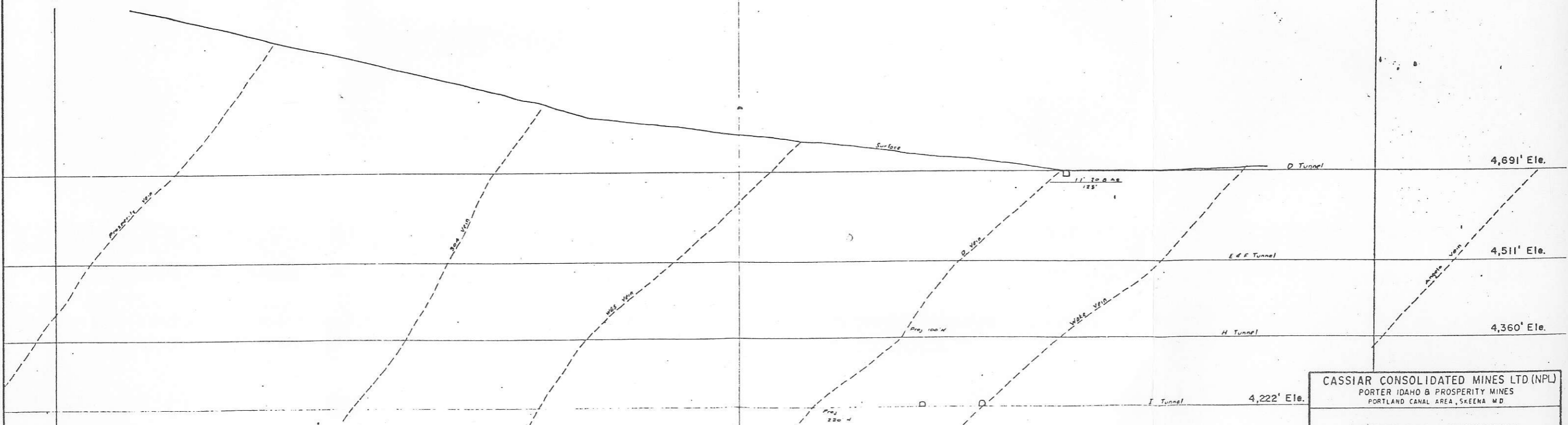
5,392' Ele.

5,246' Ele.

5,085' Ele.

2

2

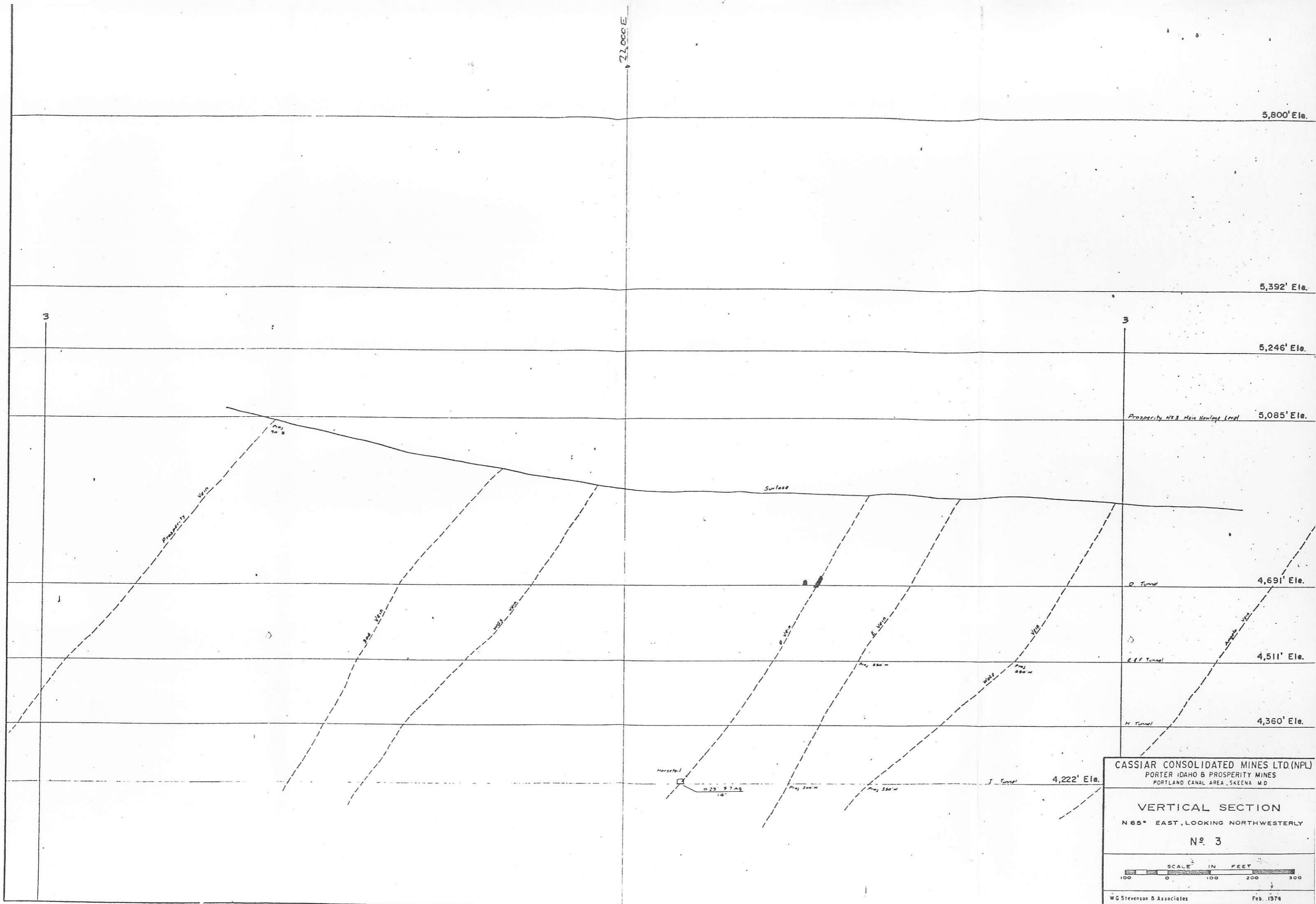


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 PORTER IDAHO & PROSPERITY MINES
 PORTLAND CANAL AREA, SKEENA B.C.

VERTICAL SECTION
 N 65° EAST, LOOKING NORTHWESTERLY
 No. 2



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 PORTER IDAHO & PROSPERITY MINES
 PORTLAND CANAL AREA, SKEENA M.D.

VERTICAL SECTION
 N 65° EAST, LOOKING NORTHWESTERLY
 No. 3

SCALE IN FEET
 0 100 200 300

WG Stevenson & Associates Feb. 1974



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 PORTER IDAHO & PROSPERITY MINES
 PORTLAND CANAL AREA, SKEENA M.D.

VERTICAL SECTION
 N 65° EAST, LOOKING NORTHWESTERLY
 No. 4

SCALE IN FEET
 100 0 100 200 300

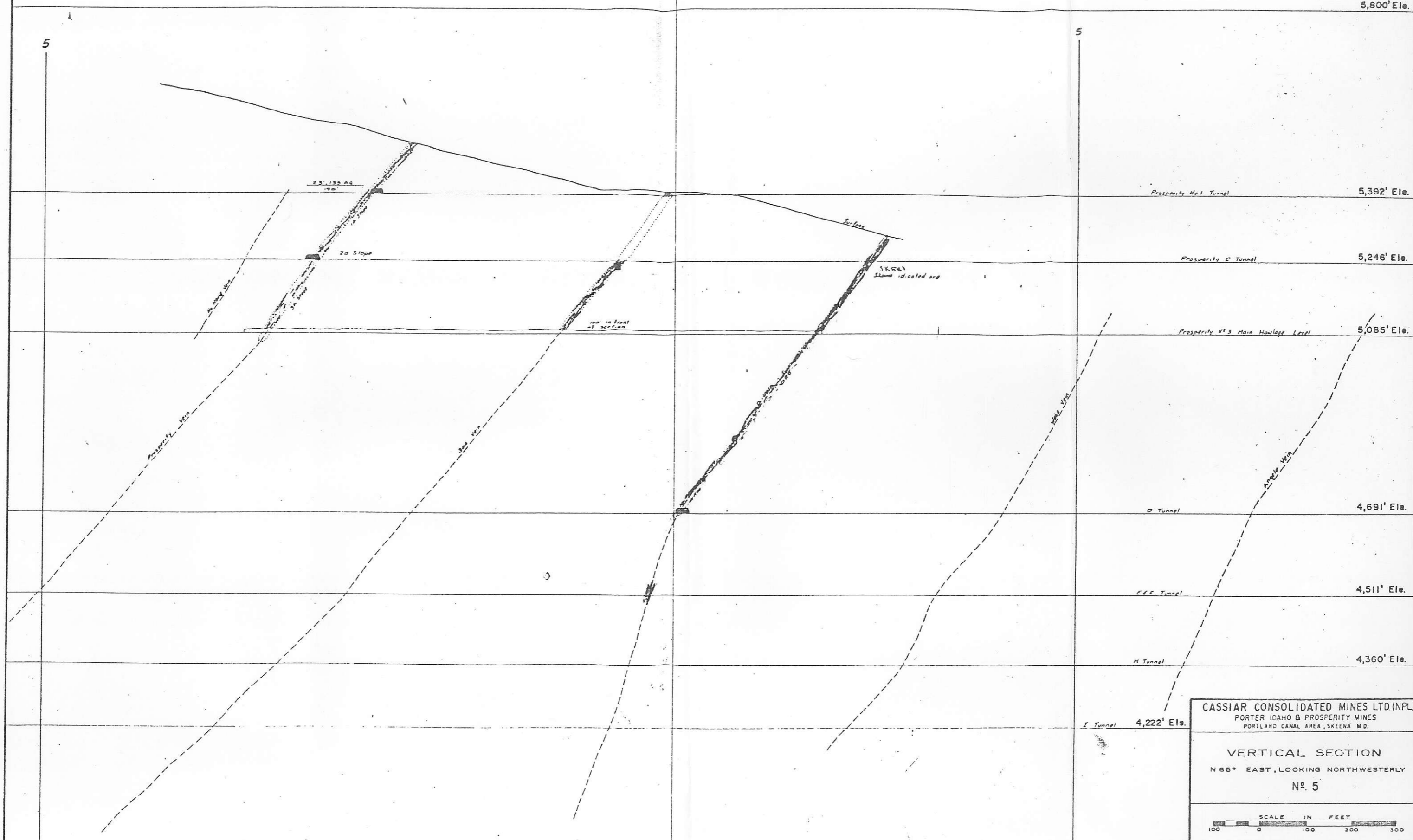
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22,000E

5,800' Ele.

5

5



Prosperity No. 1 Tunnel 5,392' Ele.

Prosperity C Tunnel 5,246' Ele.

Prosperity #13 Main Haulage Level 5,085' Ele.

D Tunnel 4,691' Ele.

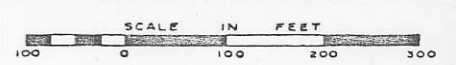
E & F Tunnel 4,511' Ele.

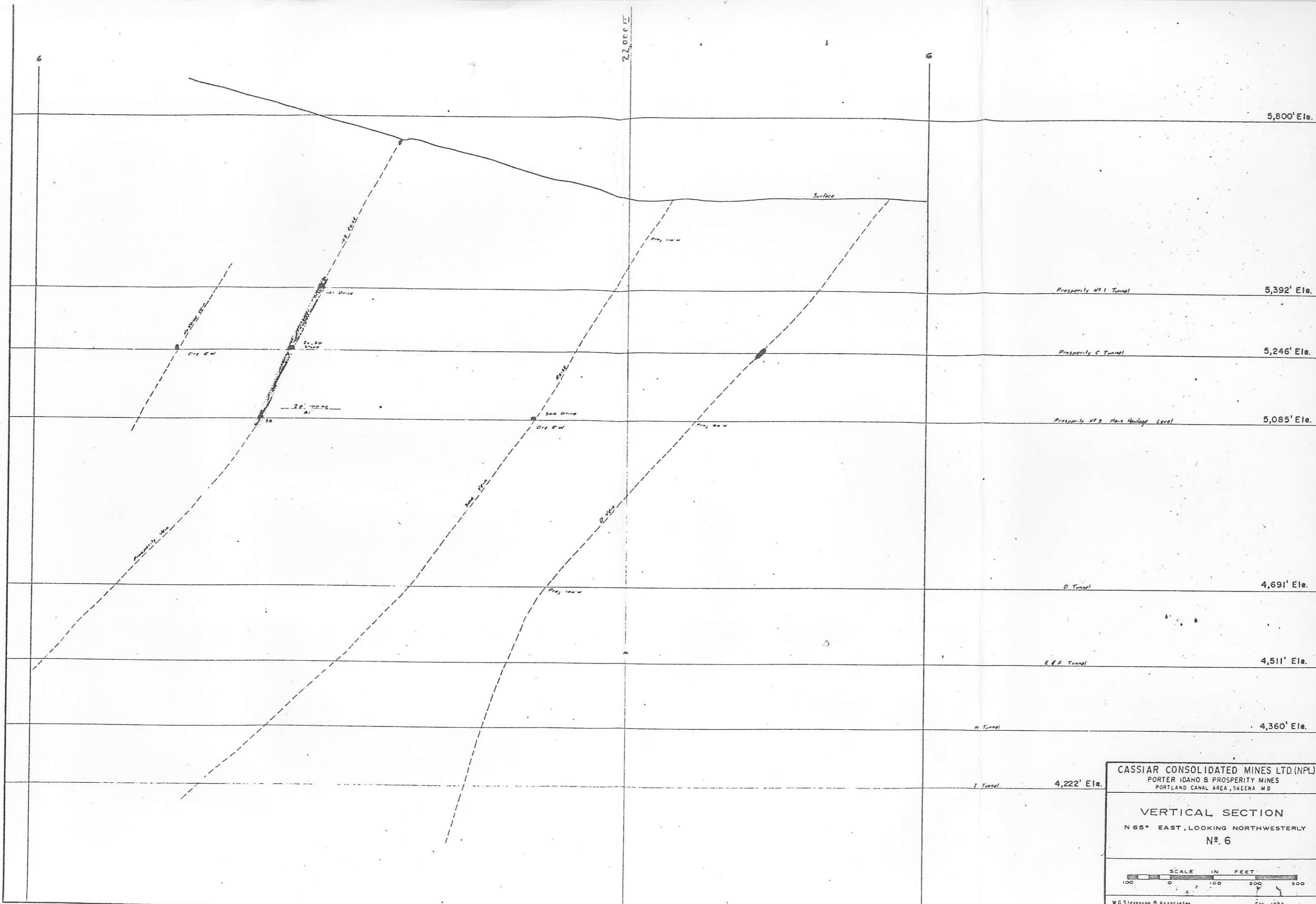
H Tunnel 4,360' Ele.

I Tunnel 4,222' Ele.

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 PORTLAND CANAL AREA, SKEENA M.D.

VERTICAL SECTION
 N 66° EAST, LOOKING NORTHWESTERLY
 No. 5



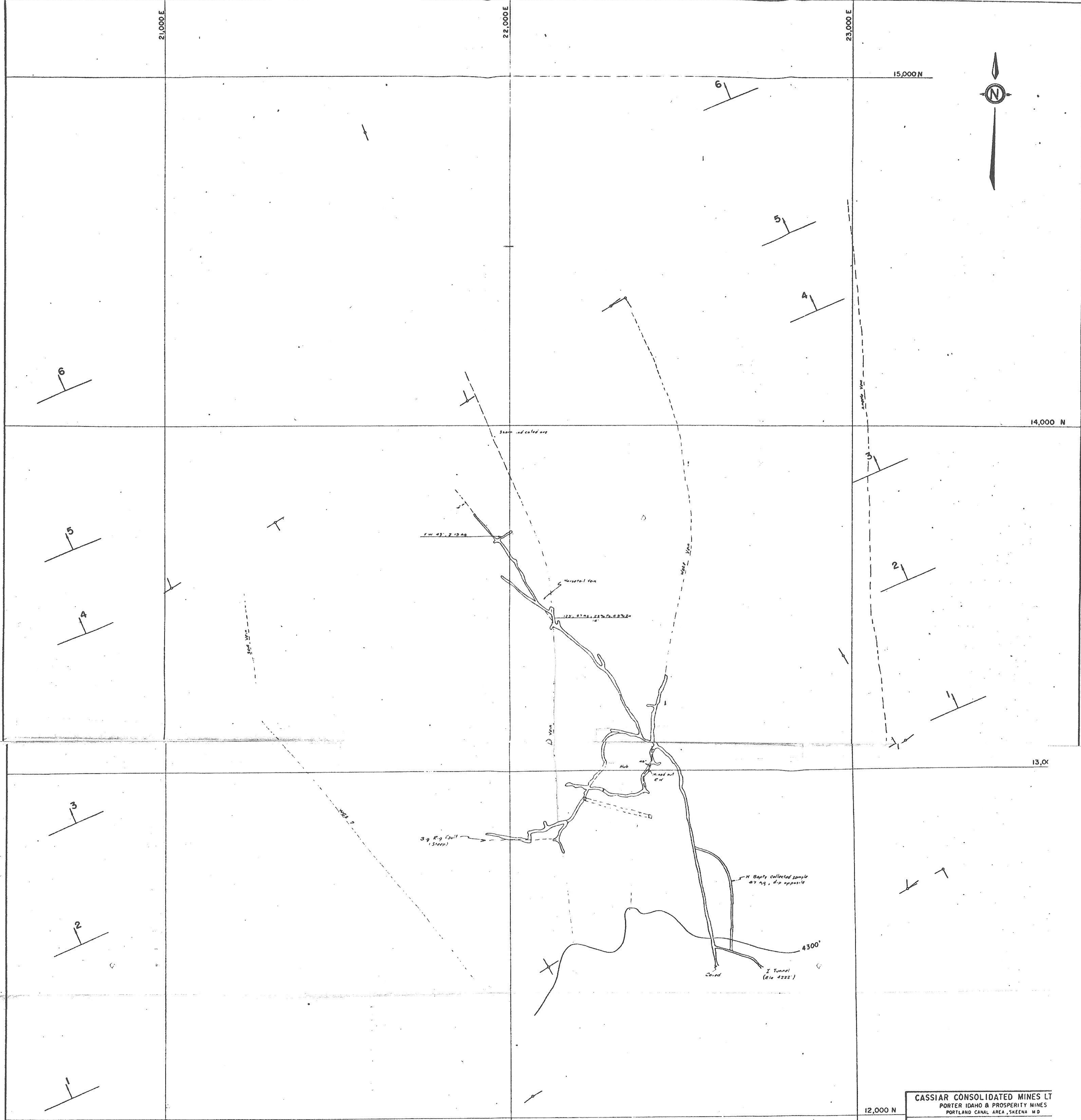


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 PORTER IDAHO & PROSPERITY MINES
 PORTLAND CANAL AREA, SKEENA MD

VERTICAL SECTION
 N 65° EAST, LOOKING NORTHWESTERLY
 No. 6

SCALE IN FEET
 100 0 100 200 300

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6

6

5

4

5

4

3

2

1

3

2

1

EW 49° 2' 13" 00

Horizontal Vein

122° 51' 43" 23' 20" 42' 52" 10'

D Vein

39' E'g Fault (Steep)

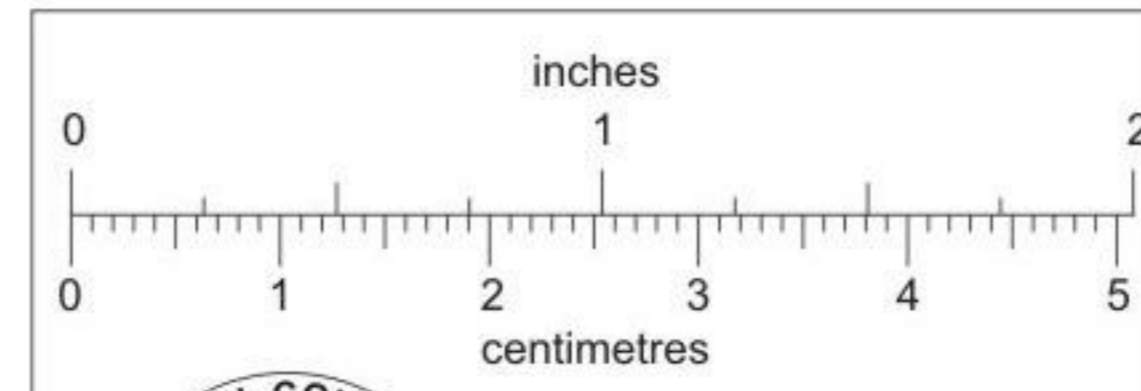
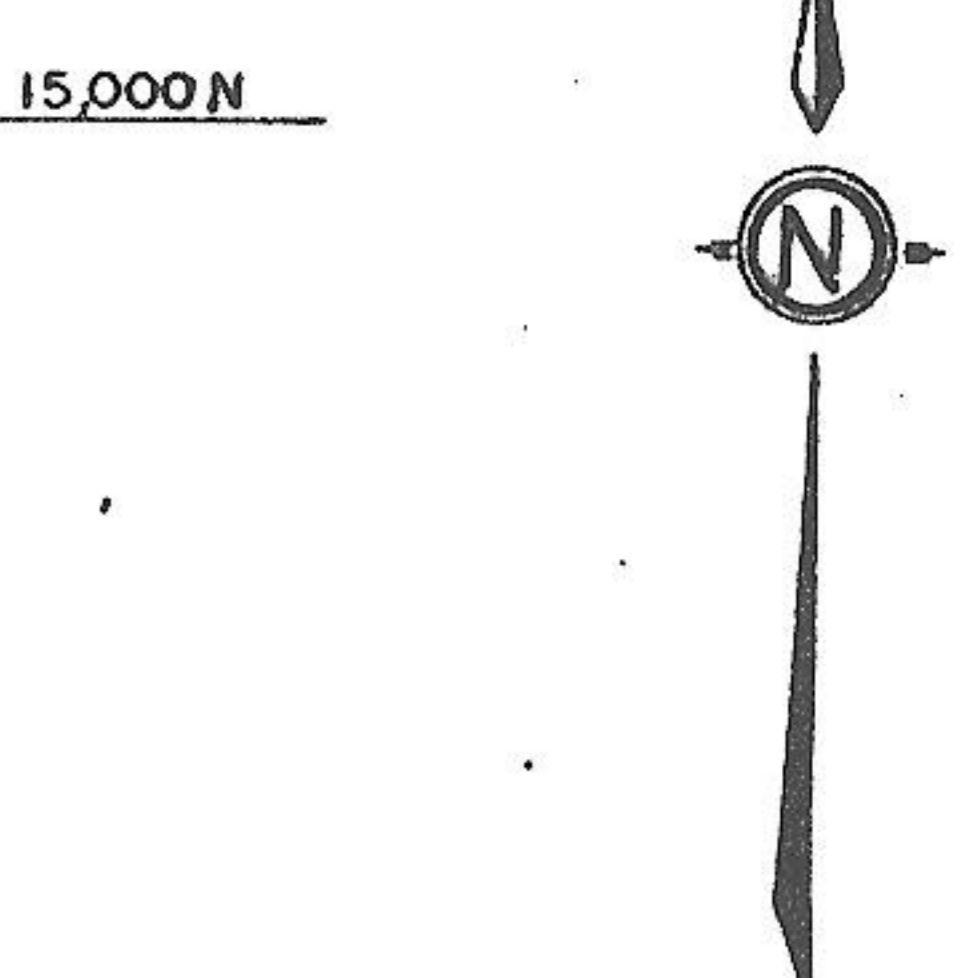
Hub

Lead out

M. Barty collected sample 47 Ag, dip opposite

4300'

I Tunnel (dip 4222')



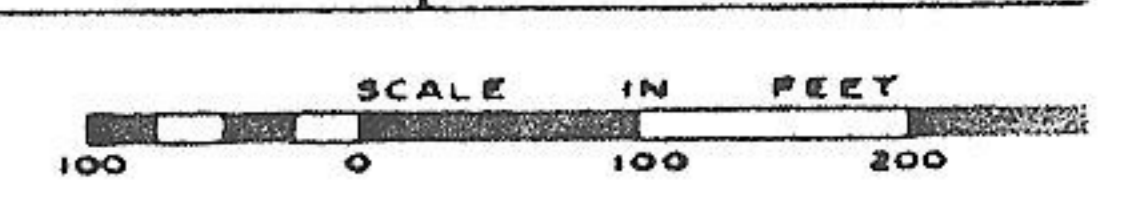
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NOTE: Based on maps prepared by Premier Gold Mines Ltd., observations by Mr. W.R. Wallace and other sources.

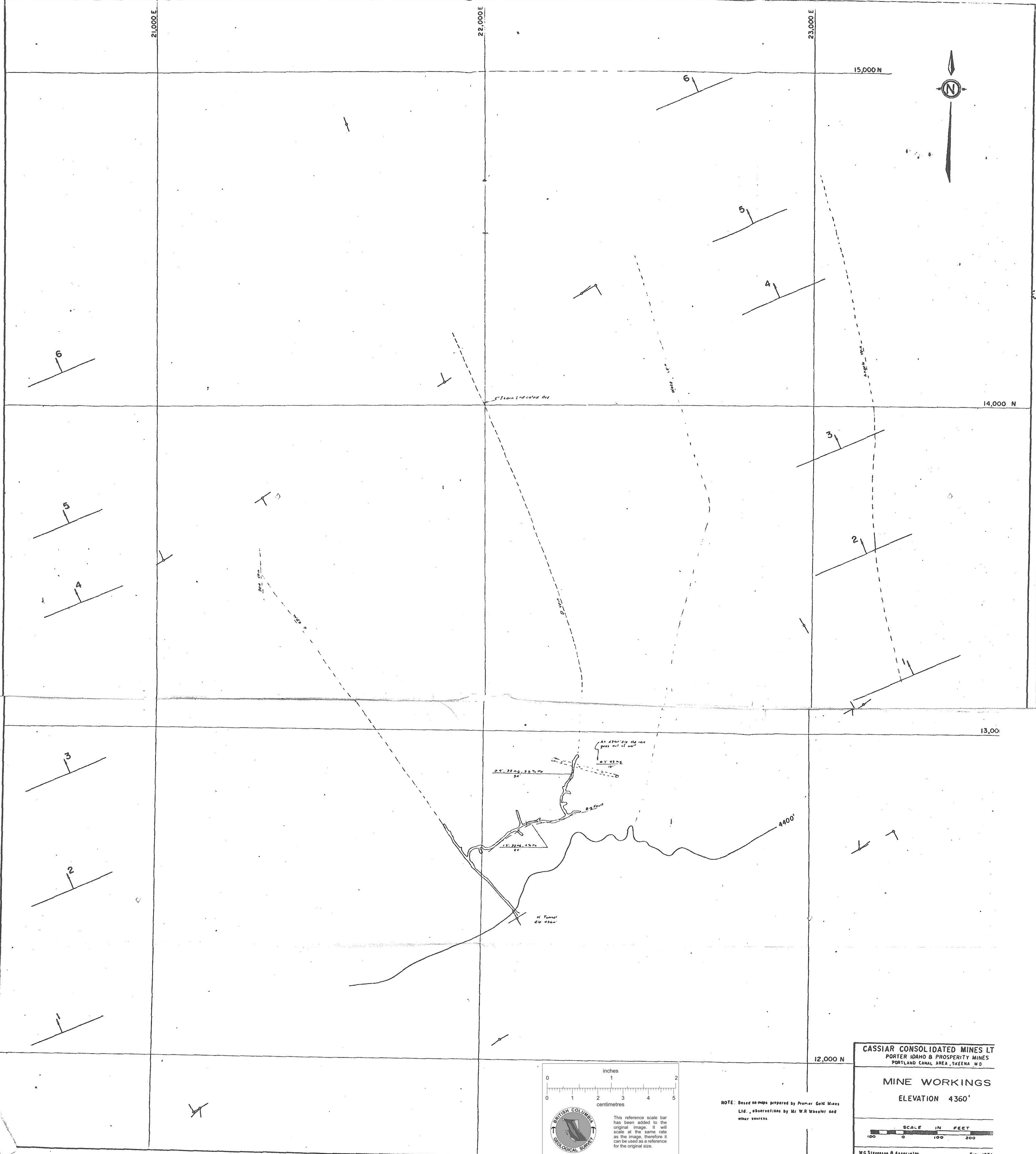
CASSIAR CONSOLIDATED MINES LT
PORTER IDAHO & PROSPERITY MINES
PORTLAND CANAL AREA, SKEENA R.D.

MINE WORKINGS

ELEVATION 4222'

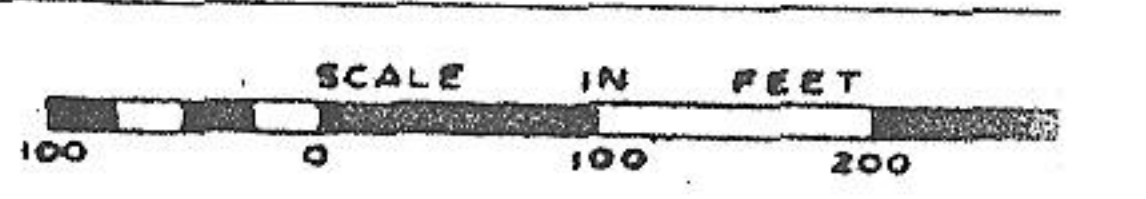


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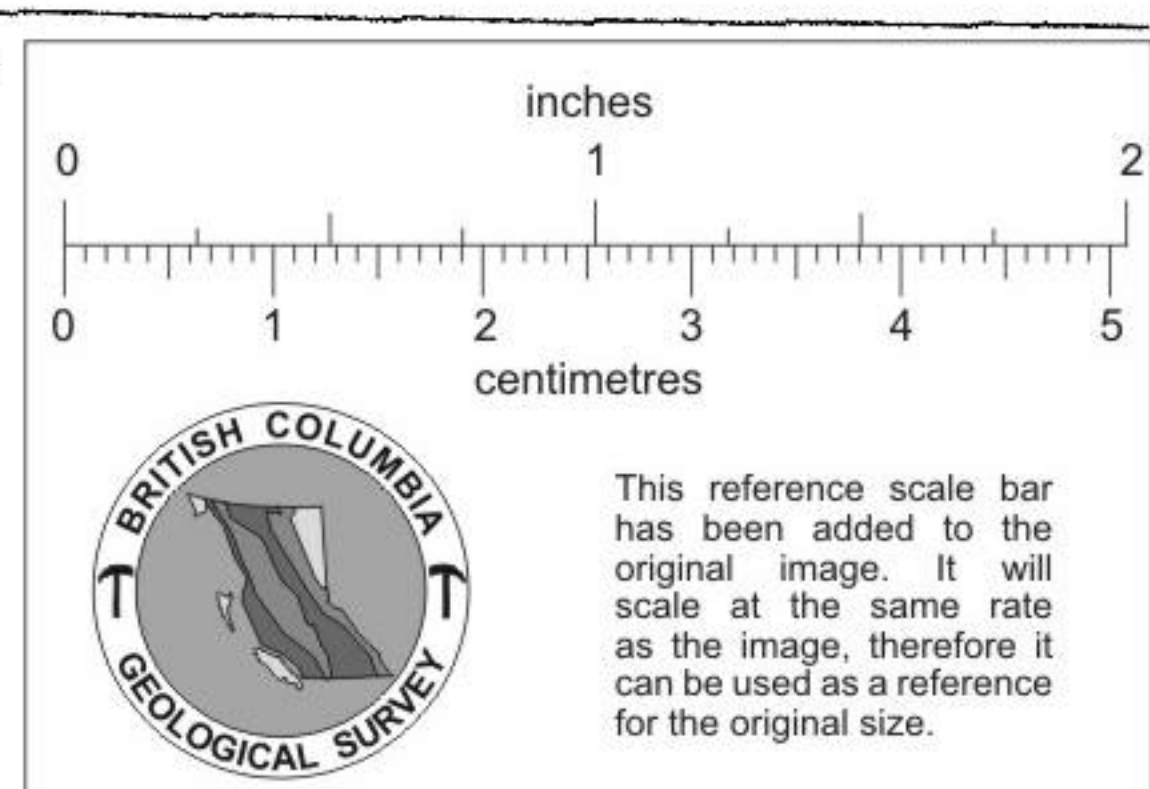


CASSIAR CONSOLIDATED MINES LT
 PORTER IDAHO & PROSPERITY MINES
 PORTLAND CANAL AREA, SKENEVA, M.D.

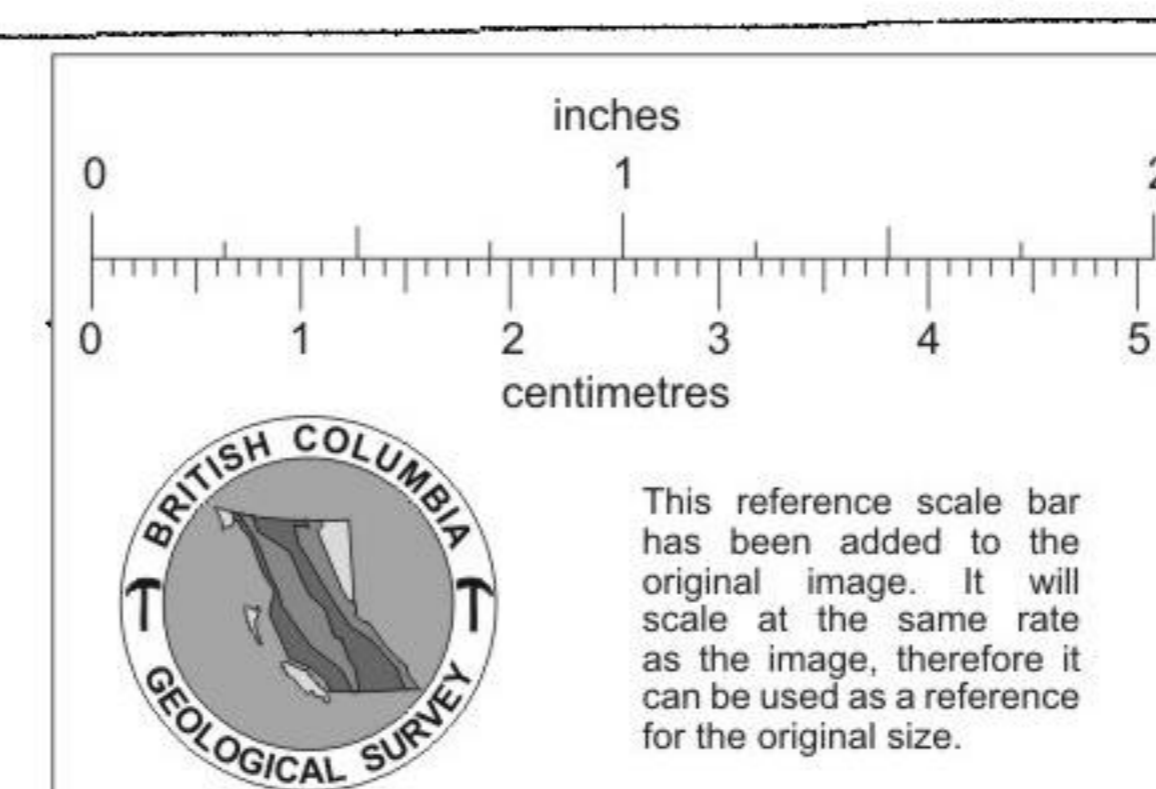
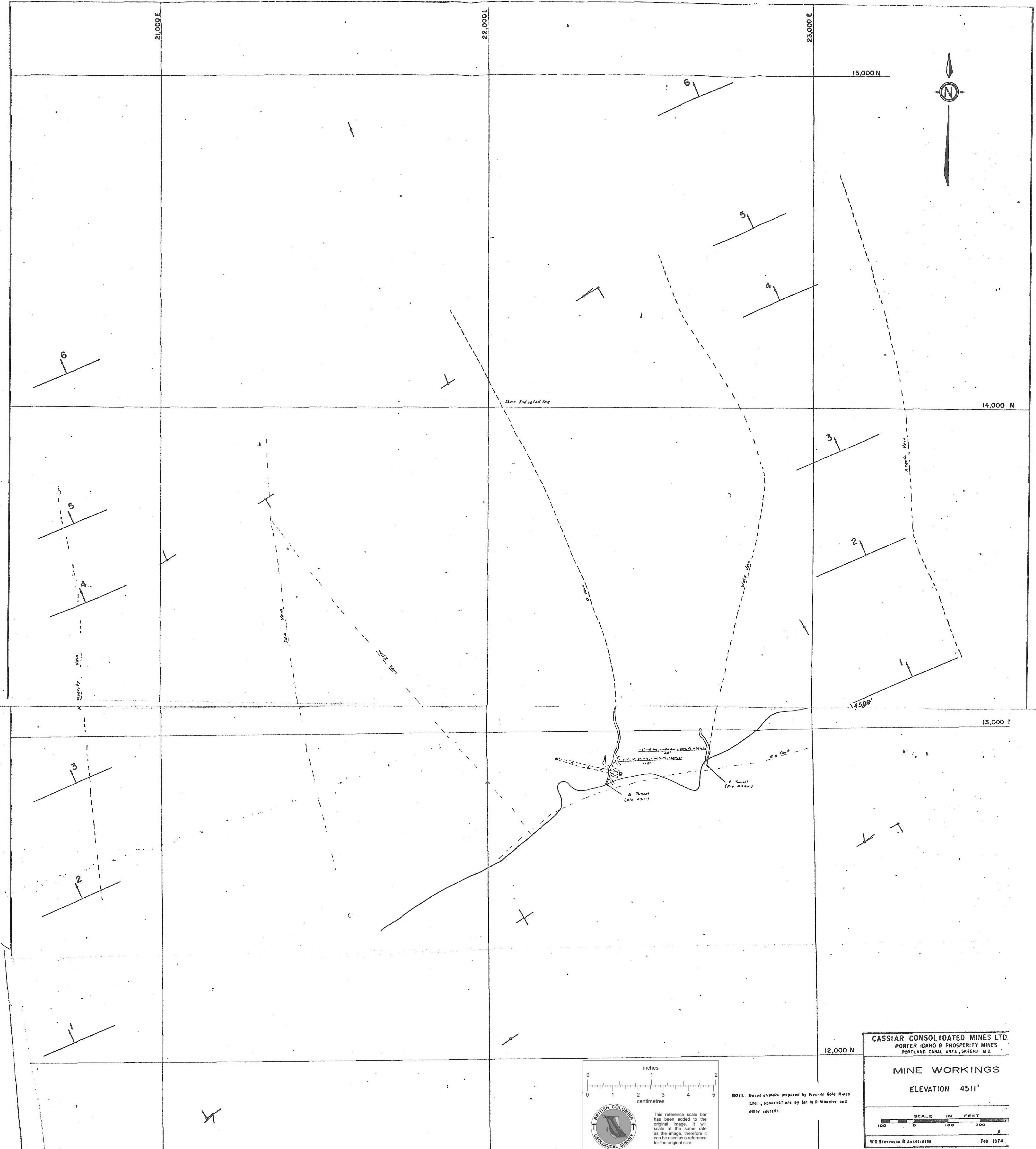
MINE WORKINGS
 ELEVATION 4360'



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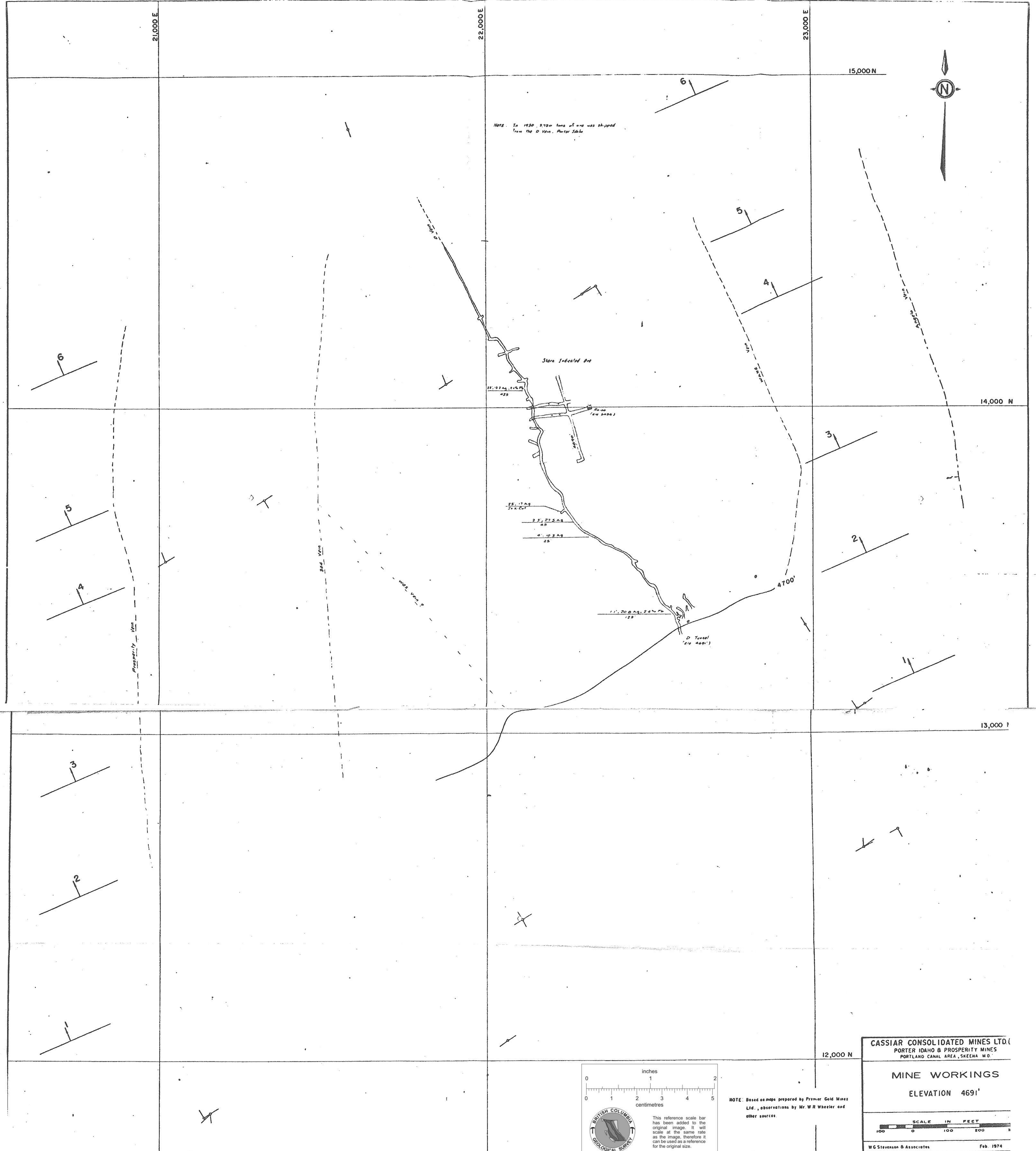


NOTE: Based on maps prepared by Premier Gold Mines Ltd., observations by Mr. W.R. Waehler and other sources.

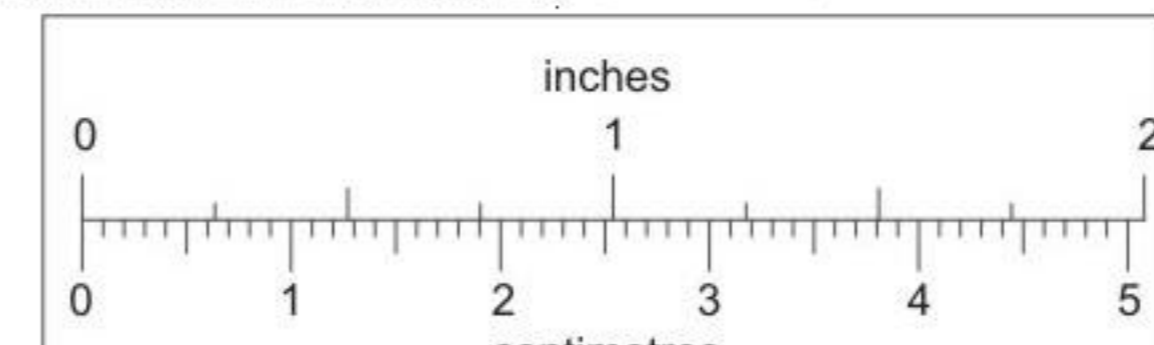


NOTE: Based on maps prepared by Premier Gold Mines Ltd., observations by Mr W.R. Wheeler and other sources.

CASSIAR CONSOLIDATED MINES LTD. PORTER IDAHO & PROSPERITY MINES PORTLAND CANAL AREA, SKEENA M.D.	
MINE WORKINGS ELEVATION 4511'	
SCALE IN FEET 	
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NOTE: In 1930, 5,720 tons of ore was shipped from the D Vein, Porter Table.



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PORTLAND CANAL AREA, SKEENA M.D.

MINE WORKINGS
ELEVATION 4691'



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21,000 E

22,000 E

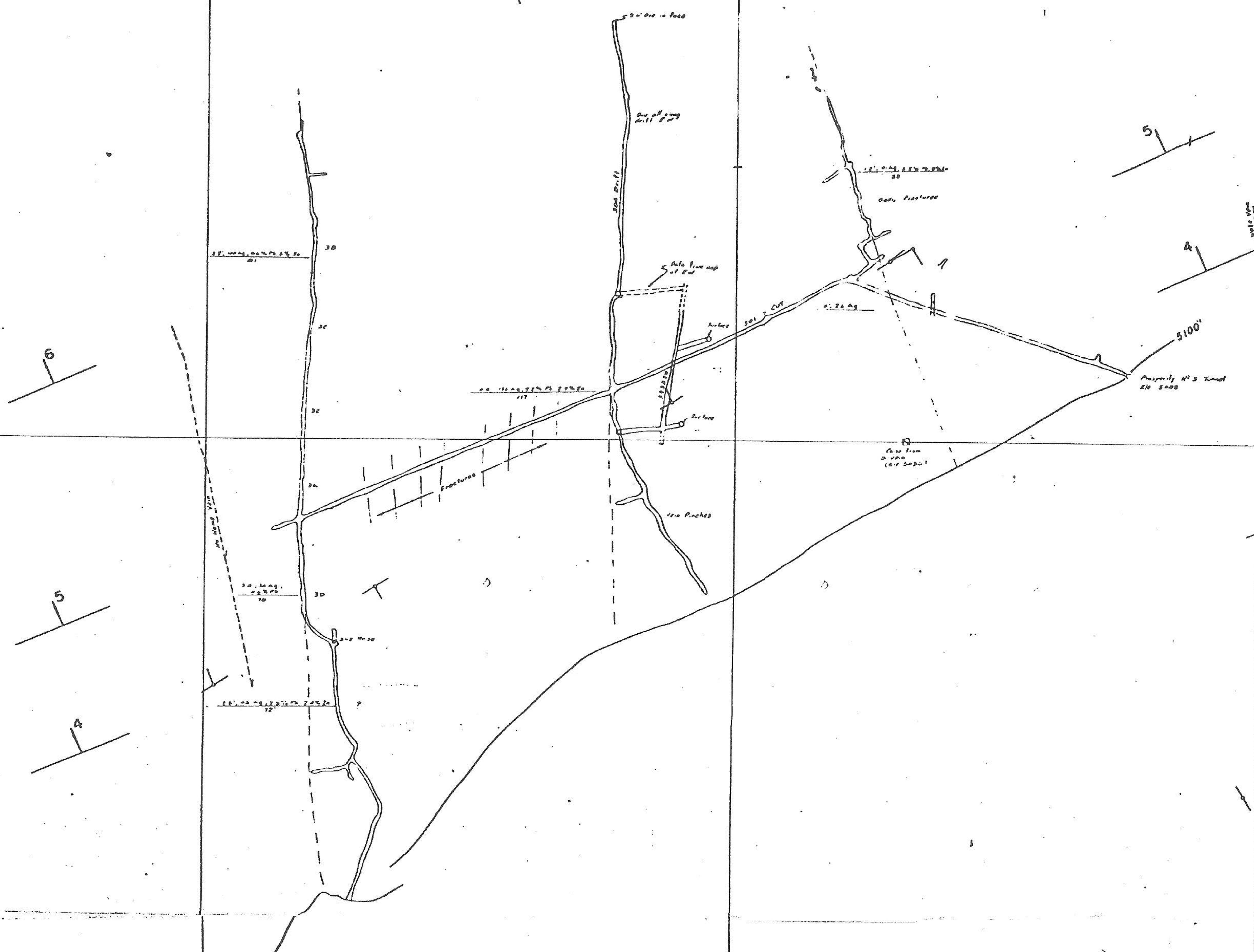
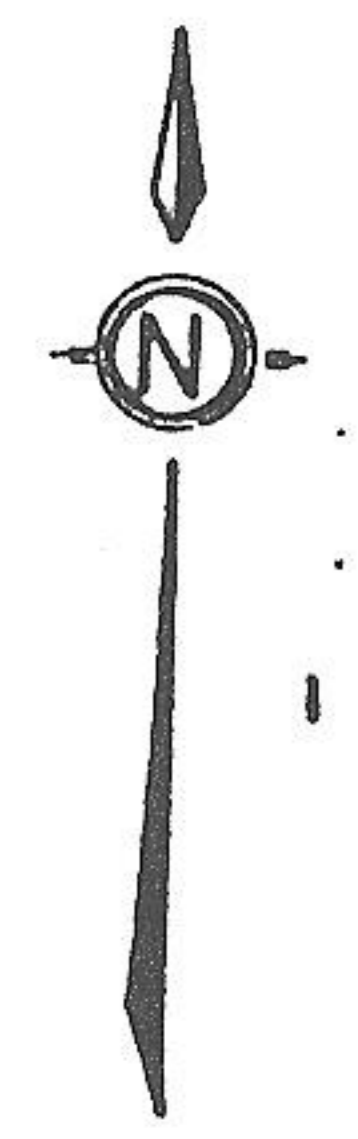
23,000 E

15,000 N

14,000 N

13,000 N

12,000 N



6

6

5

4

5100'

Prosperity No. 3 Tunnel
Elev 5085'

5

3

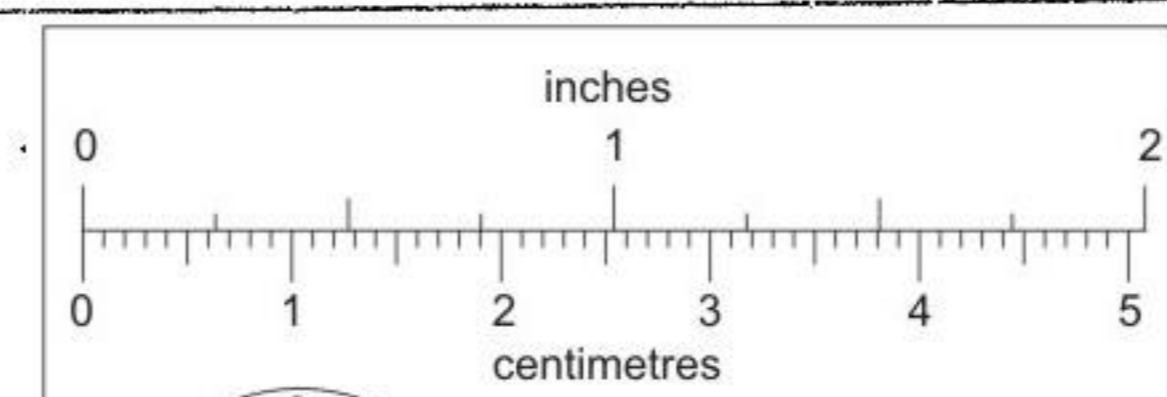
4

2

3

2

1

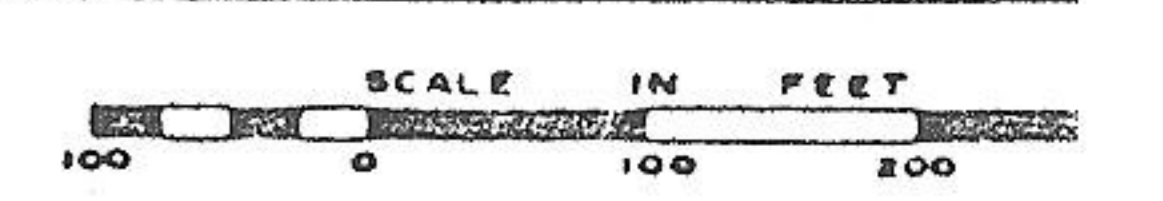


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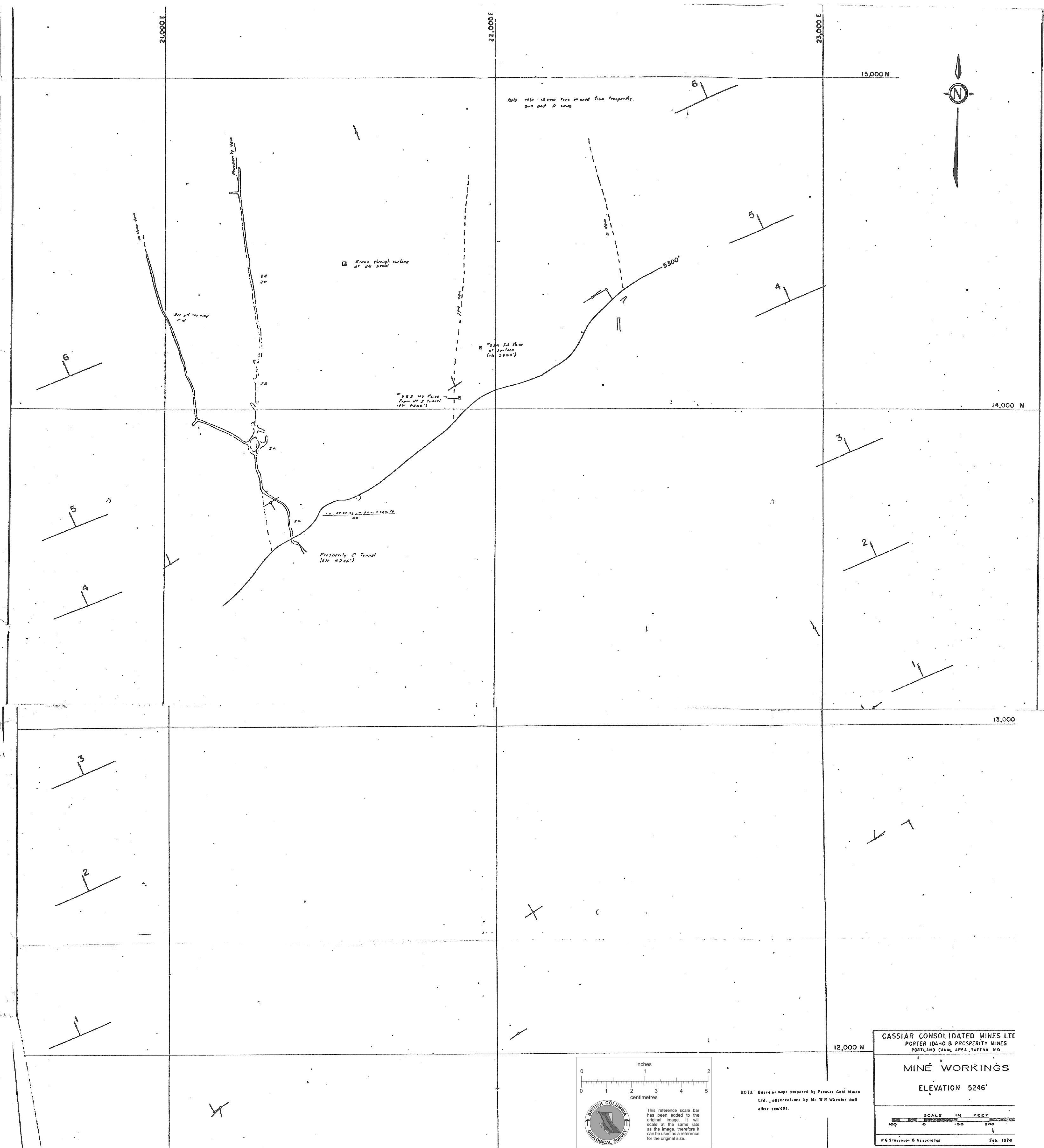
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PORTLAND CANAL AREA, SEENA W.D.

MINE WORKINGS
'ELEVATION 5085'



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Note 1250 - 12000 tons shunted from Prosperity, 2nd and D veins

Break through surface at 50 5250'

324 J.M. Run of surface (Elev 5300')

382 M.F. Case from 2nd Tunnel (Elev 5262')

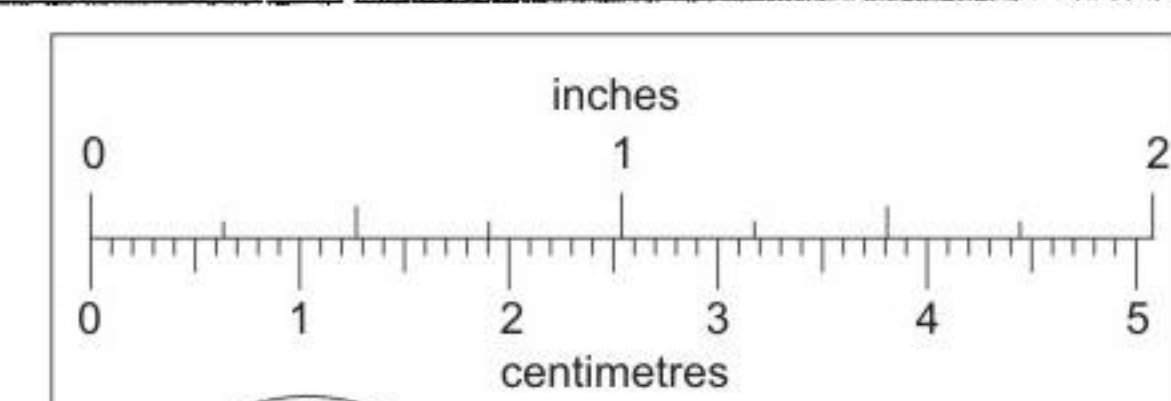
Prosperity C Tunnel (Elev 5246')

15,000 N

14,000 N

13,000

12,000 N

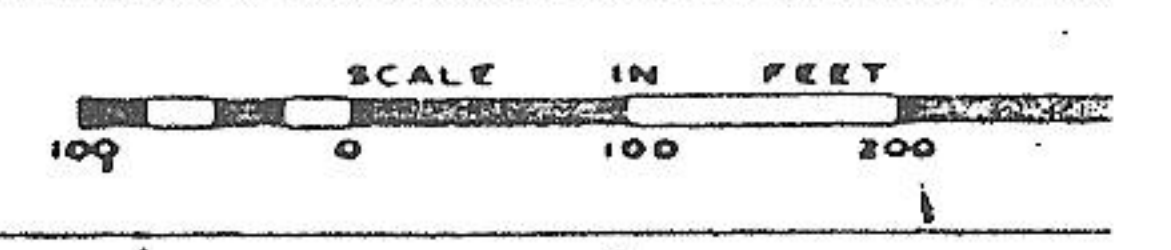


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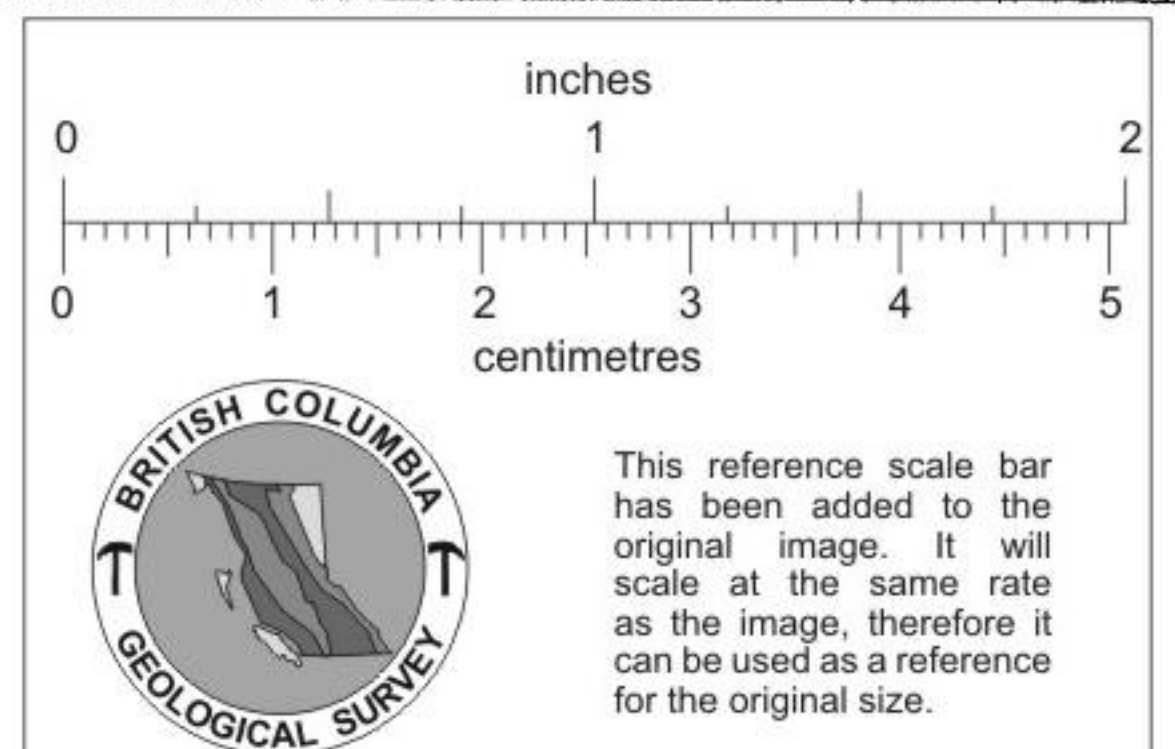
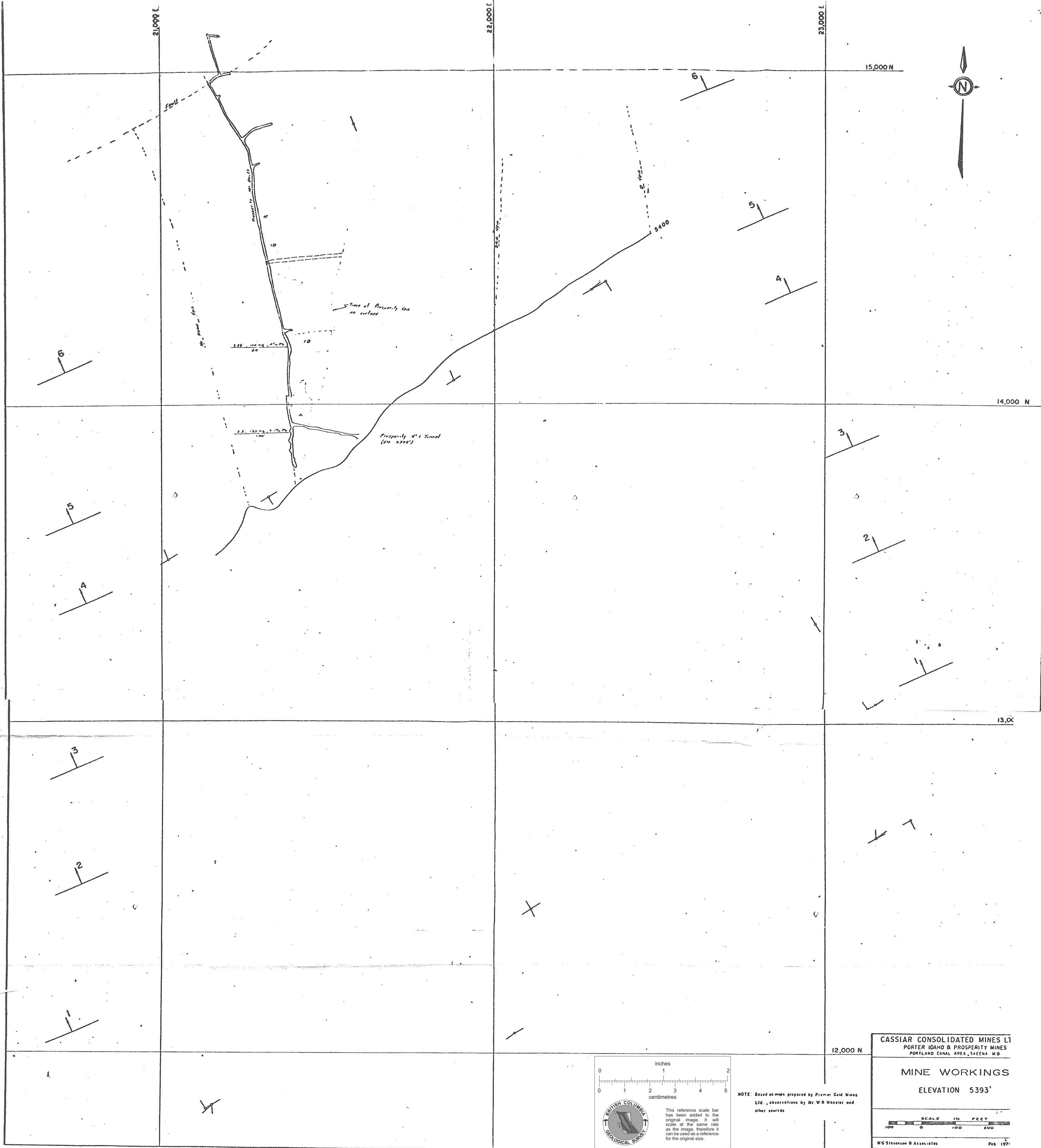
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CASSIAR CONSOLIDATED MINES LTD
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PORTLAND CANAL AREA, SKEENA RD

MINE WORKINGS
ELEVATION 5246'



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NOTE: Based on maps prepared by Premier Gold Mines Ltd., observations by Mr. W.R. Wheeler and other sources.

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 PORTER IDAHO & PROSPERITY MINES
 PORTLAND CANAL AREA, SKEENA M.D.

MINE WORKINGS
 ELEVATION 5393'

SCALE IN FEET
 0 100 200

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