

GEOLOGICAL REPORT  
YMIR-PROTECTION PROPERTY  
NELSON MINING DIVISION  
British Columbia

FOR

NU-DAWN RESOURCES INC.

By:  
E. Percy Sheppard, P.Eng.  
Consulting Geologist

July 31, 1981  
Vancouver, B.C.

Ymir-Protection Property

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Ymir-Protection Property

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GEOLOGICAL REPORT  
YMIR-PROTECTION (GOODENOUGH) PROPERTY  
NELSON M. D., B. C.

SUMMARY

Nu-Dawn Resources Inc. of Vancouver, British Columbia, is the owner of the Ymir-Protection property located five kilometres northeast of Ymir, B.C. This property covers much of the Ymir Consolidated and the Goodenough Mines which were major producers of gold, silver, lead and zinc in the 1900's and 1930's.

The ore occurs in quartz veins ranging in width from 2 to 24 metres, and was developed by and mined from extensive underground workings.

A study of the extensive available data and visits to the property indicate that, though a considerable tonnage has been removed, the property retains large quartz veins of unknown grade and dimensions. In the writer's opinion, the property has sufficient merit to warrant the rehabilitation and exploration program outlined in this report.

RECOMMENDATIONS

It is recommended that Nu-Dawn Resources Inc. proceed with the proposed rehabilitation and exploration program. It is further recommended that the Company allocate sufficient funds to carry out the program.

E. P. Sheppard

E. Percy Sheppard, P.Eng.  
Consulting Geologist

*EP Sheppard*

July 31, 1981

GEOLOGICAL REPORT  
YMIR-PROTECTION (GOODENOUGH) PROPERTY  
NELSON M. D., B. C.

INTRODUCTION

The following report was prepared at the request of Mr. A. H. D. Rogers, President of Nu-Dawn Resources Inc.

Data were obtained from a study of pertinent information and two visits to the property: (1) on April 2, 1981, accompanied by Mr. E. Helgren of Salmo, B.C. A heavy snowfall had just blocked the portals but one small portal was opened on the Protection (Goodenough) zone. Seven dump and oreshoot samples were taken; (2) from July 7 to 11, 1981, accompanied by D. Taylor, P.Eng., John Mirko, and A. M. deQuadros. Several portals were opened on both zones. The accessible adit levels were examined and 40 samples were taken of vein material, dump rock and the tailings pond.

Considerable valuable information was supplied the writer by Mel deQuadros and John Mirko who researched the early history of the properties and obtained numerous survey maps made during the previous production periods.

PROPERTY

The property consists of a group of contiguous Crown Grant claims, metric grid claims and fractions, as follows:

<u>Name</u>	<u>C.G.</u>	<u>Lot No.</u>	<u>Expiry Date</u>
YMIR	"	1708	
ROCKLAND	"	1709	
MUGWAMP	"	1710	
GOLDEN HORN	"	1711	
NORA FRACTION	"	2301	
POUNTNEY FRACTION	"	2302	
LAWRENCE FRACTION	"	2303	
		<u>Record No.</u>	
PROTECTION #1-20 units		2129	Jan. 30, 1982
PROTECTION #2- 8 "		2130	" " "
PROTECTION #3- 4 "		2131	" " "
YMIR FRACTION- 1 "			
YMIR FRACTION #2 -1 "			

These claims cover workings of the Ymir Consolidated and Protection (Goodenough) Mine as well as the two old mill sites, cyanide plant site and various tailings ponds.

OWNERSHIP

The property is owned by Nu-Dawn Resources Inc., of Vancouver, B.C.

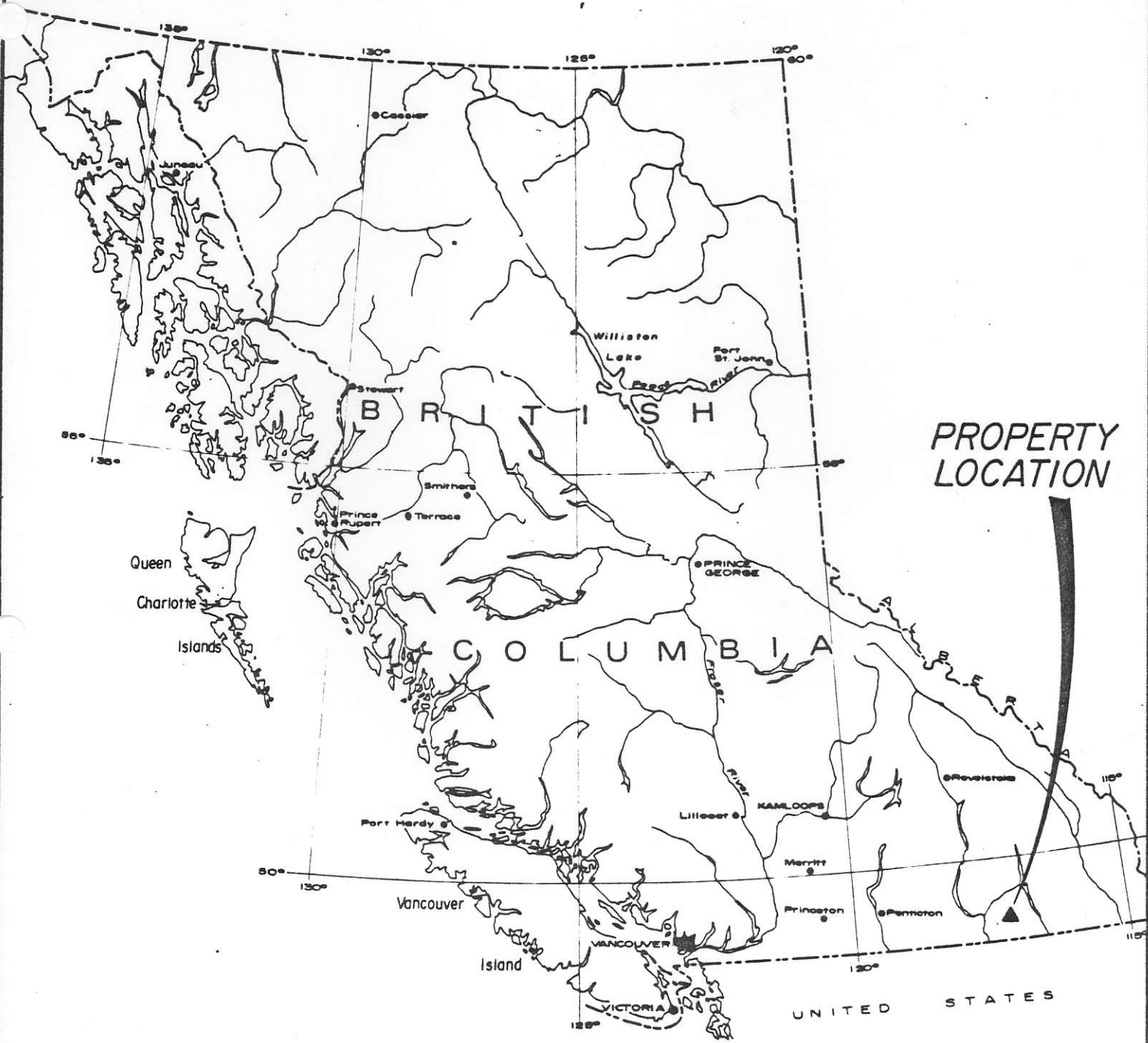
The Company owns the surface rights over the original 5-acre millsite which forms a part of sub-lot 50 of Land lot 1242.

A fractional piece of ground, the Goodenough Fraction, Lot No. 13025, crossing the centre of the Protection zone, is an escheated claim. This ground is currently owned by the Government of British Columbia and Nu-Dawn Resources Inc. is negotiating an Agreement to Purchase through the Attorney General. At this time the Company has the right of access through the Fraction as per instructions from the Nelson District Inspector of Mines.

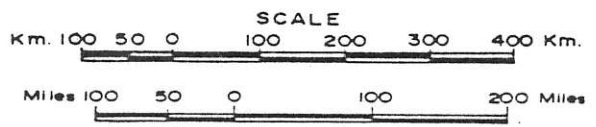
LOCATION (Co-ordinates: 49° 19'N Lat., 117° 10'W Long.) NTS 82F/6E

The property is situated 5 kilometres northeast of Ymir, B.C., between Ymir and Huckleberry Creeks. The town

cont...



**FIGURE 1**  
**NU - DAWN RESOURCES INC.**  
**YMIR-PROTECTION PROPERTY**  
**LOCATION MAP**



LOCATION - cont.

of Ymir lies on Highway 6 between Salmo and Nelson. The Canadian Pacific Railway also passes through Ymir. The towns of Castlegar (airport) and Trail (smelter) lie approximately 60 kilometres to the west on Highway 3. A 1100-ton per day mill is located 25 kilometres south of Ymir at the old H. B. Mine.

Access is via good all-weather gravel roads from Ymir. A network of secondary roads on the property connects all the portals and workings.

PHYSICAL ENVIRONMENT

The property covers the southeast slopes of Mt. Elise and the Ymir Creek valley. The area of interest ranges in elevation from approximately 900 to 1800 metres.

The climate is moderate with temperatures ranging between -20°C and +30°C. Precipitation is moderate with a total of approximately 600 mm annually. Snowfall is generally 100 to 150 cm. The exploration season is long with surface work usually possible for eight months of the year.

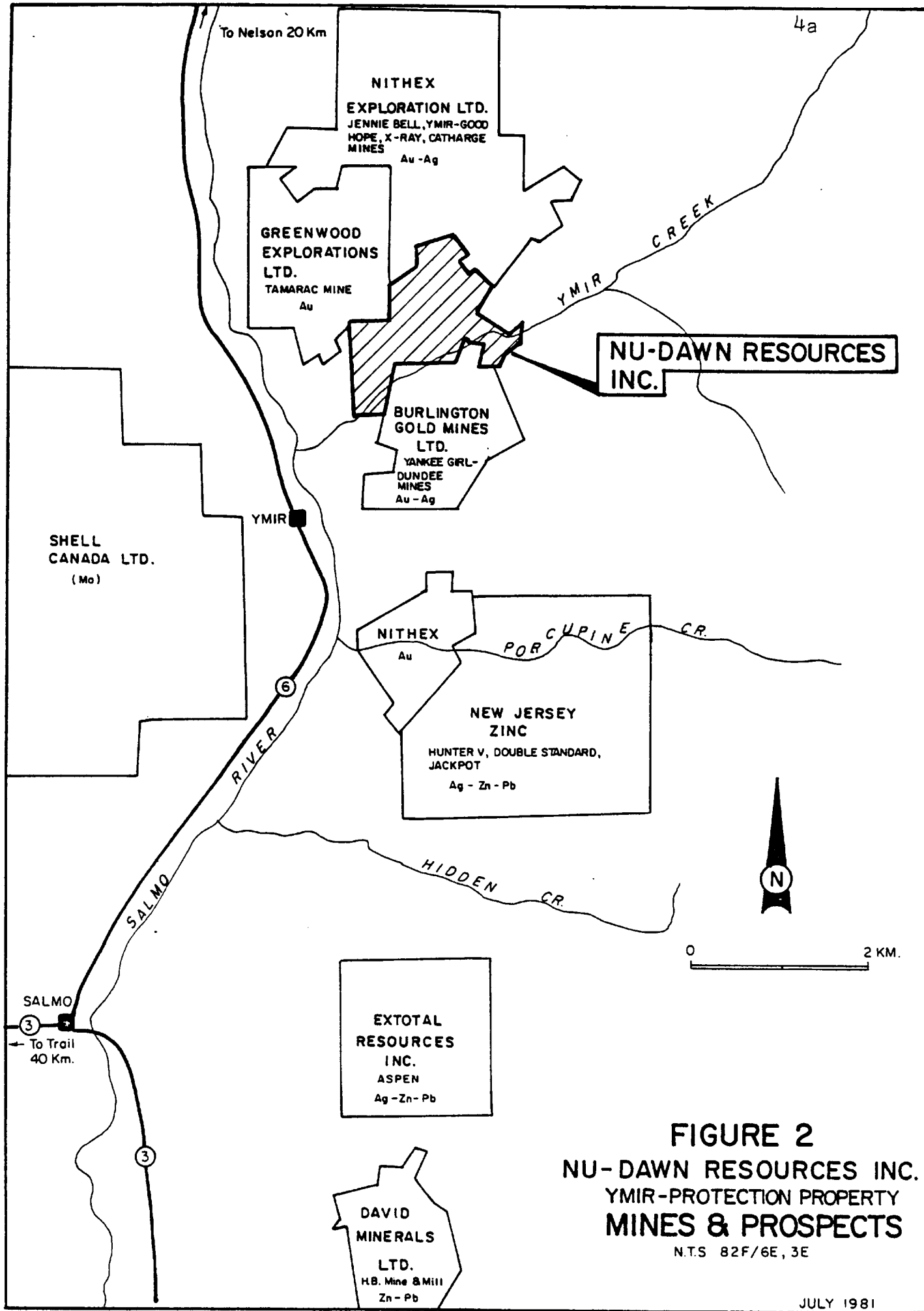
The area surrounding Mt. Elise was burnt off in the early 1900's. It is now covered with a secondary growth of alder, willow, poplar, aspen and patches of young evergreens. Much of the hillsides and valleys are covered by a fairly thick humic soil with a few outcrops.

HISTORY

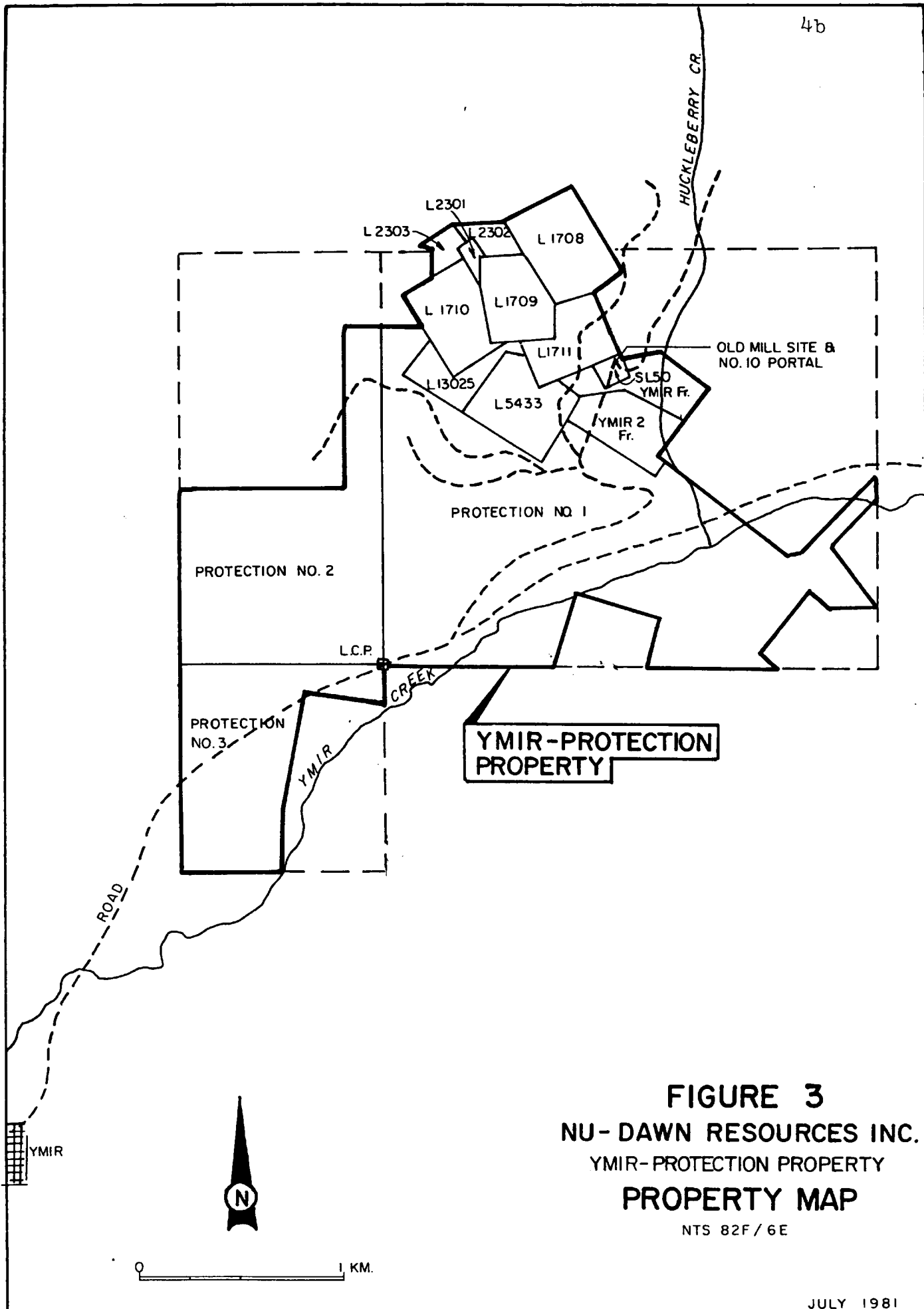
The Crown Grant claims on the property date back to 1895. Because of their importance as producers, the claims are mentioned in the B.C. Dept. of Mines Annual Reports from 1897 to 1944 and occasionally in other bulletins, memoirs and summary reports.

cont....





**FIGURE 2**  
**NU-DAWN RESOURCES INC.**  
 YMIR-PROTECTION PROPERTY  
**MINES & PROSPECTS**  
 N.T.S 82F/6E, 3E



**FIGURE 3**  
**NU-DAWN RESOURCES INC.**  
**YMIR-PROTECTION PROPERTY**  
**PROPERTY MAP**

NTS 82F/6E

HISTORY - cont.

The history is summarized as follows:

1896 - Ymir zone acquired by London & British Goldfields Ltd.

1897 - Protection (Goodenough) zone acquired by Ymir Gold Mining Company.

1900

1901 - 80-stamp mill and cyaniding plant at Ymir.

1902 - No. 10 level crosscut driven 2154 ft. to intersect Ymir zone at 1000 ft. level below outcrop.

1903 - Steady production at 50,000 tons per year.

1904

1908 - Decrease in production. Shut down.

1932

1933 - Ymir zone and Protection (Goodenough) optioned to Ymir Gold Mines Ltd.

1934 - Sampling of Ymir zone by Ymir Consolidated Gold Mines Ltd. indicates large blocks of low-grade ore. Sampling on Protection (Goodenough) zone shows small blocks of high-grade ore.

1935 - 125-ton per day flotation mill built and operated for 4 months, mainly on Protection ore.

1937 - Mill operated at 30-tons per day.  
Development of Protection (Goodenough) hampered by a 20% royalty.  
Ymir zone too low grade to be economical at 100 tons per day.

1932

1940 - 52,411 tons giving 14,704 oz Au (0.28 oz/ton)  
100,609 oz Ag (1.92 oz/ton)  
1,624,973 lb Pb (1.55%)  
668,475 lb Zn (.6%)

1940-1979 - Limited work by leasors and junior mining companies.

1981 - Both zones owned by Nu-Dawn Resources Inc.

cont....

HISTORY - cont.Total Production:

Ymir Zone - 1895-1950

366,983 tons containing 109,606 oz Au (0.299 oz/ton)  
458,909 oz Ag (1.250 oz/ton)  
10,531,644 lbs Pb (1.43% Pb)  
1,777,780 lbs Zn (0.24% Zn)

Protection (Goodenough) Zone - 1898-1973

16,745 tons containing 10,685 oz Au (0.638 oz/ton)  
83,089 oz Ag (4.96 oz/ton)  
1,520,137 lbs Pb (4.5%)  
1,565,216 lbs Zn (4.6%)  
1,134 lbs Cadmium

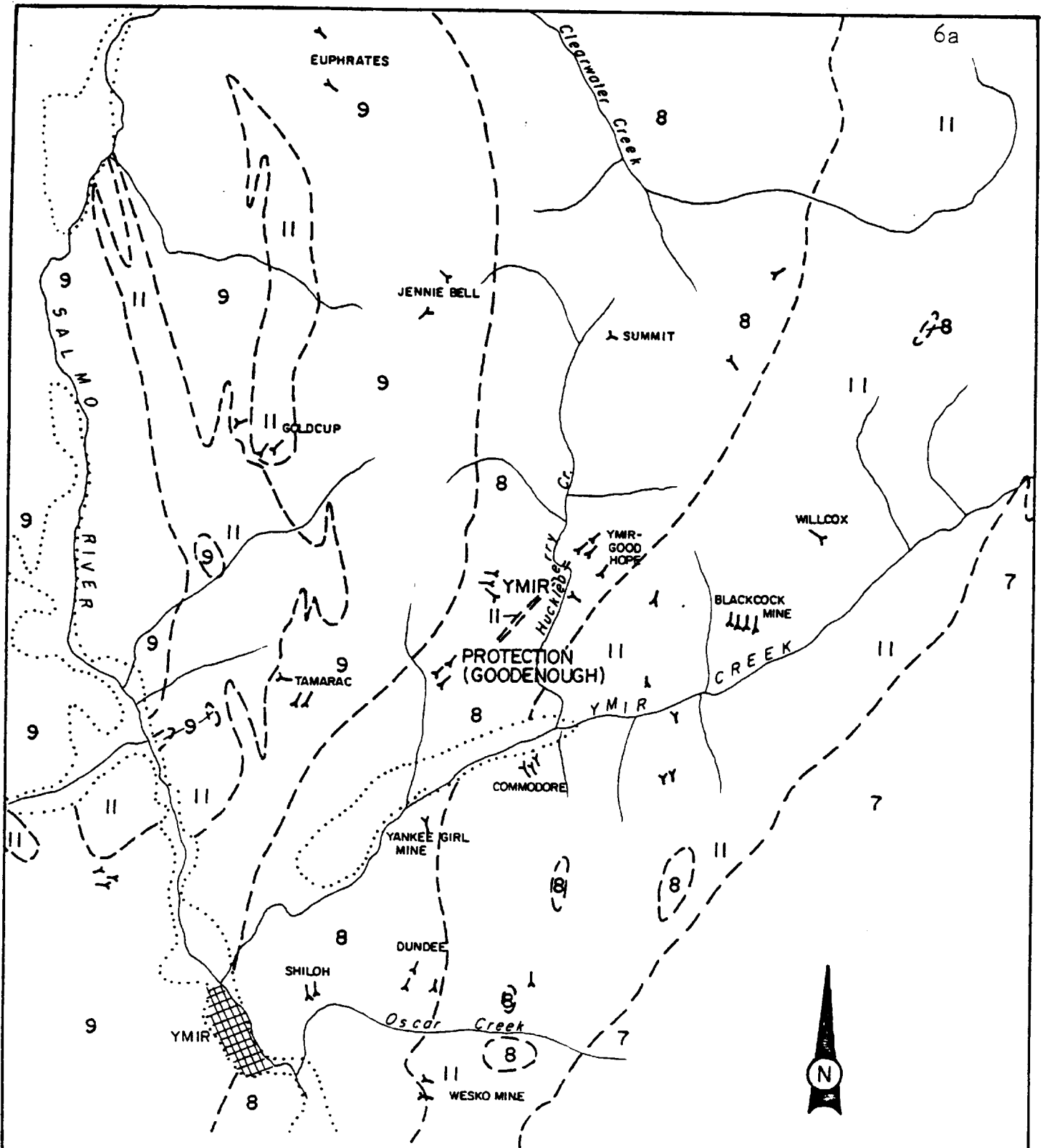
REGIONAL GEOLOGY

The shear and fault-fissure quartz-vein ore deposits of the Ymir gold camp occur in sedimentary, volcanic and granitic rocks. The economic deposits mined to date have occurred only in the sediments.

The Ymir Group consists of argillites, slates, minor impure limestones and impure quartzites. These rocks have been correlated with the Triassic Slocan Group on the basis of similar lithology. Both groups are also overlain by the volcanic rocks and minor shales of the Lower Jurassic Rossland Formation. The base of the Ymir Group is not seen, but the Slocan Group is underlain disconformably by the Kaslo Group which, in turn, is underlain by the Permo-Carboniferous to Triassic Milford Group.

The rocks in the Ymir Group occur in a belt extending from a ridge south of Porcupine Creek northward to east of Nelson. The belt is one to three miles wide with an estimated thickness in the thousands of feet. The internal structure is complex and not known, though it is believed that it was subjected to folding before the emplacement of the Nelson Batholith.

cont....



**LEGEND**

- 11 Lower Cretaceous (?) - Nelson Plutonic Rocks
- 9 Lower Jurassic - Elise Fm. (= Rosland Formation)
- 8 Lower Jurassic (?) and older - Ymir Group
- 7 Lower Cambrian and (?) Later
- Y Adit
- ⋯ Drift-covered area

**FIGURE 4**  
**NU-DAWN RESOURCES INC.**  
**YMIR-PROTECTION PROPERTY**  
**GENERAL GEOLOGY**  
 NTS 82F/6E

After G.S.C. Map 1144 A

REGIONAL GEOLOGY - cont.

The Rossland Formation of basic volcanic and minor sedimentary rocks has been assigned to Lower Jurassic on the basis of ammonite fossils. The belt of outcrop ranges in width from approximately one to two miles with a calculated thickness of approximately 9000 feet.

The greater part of the Nelson area is underlain by Nelson and Valhalla plutonic rocks of the Nelson Batholith and its satellite stocks. The age of these plutonic rocks, based on correlation with other intrusive rocks and its relationship with the sedimentary rocks, is usually assigned to Lower Cretaceous. The possible age could range from Middle Jurassic to Lower Cretaceous. A K-AR radiometric date from a granodiorite near Nelson is reported to have given 86 million years - Upper Cretaceous.

Dykes of various compositions occur throughout the area, apparently related to the Nelson plutonism. The dykes intrude both the Nelson plutonic rocks and the older sedimentary sequences. Lamprophyre dykes in particular are seen in the mining camps.

Numerous faults occur throughout the area. They are particularly found in places which are underlain by the Slocan and Ymir Group rocks. No systematic study exists of these faults, but they appear to be mostly strike-slip faults of unknown but apparently small magnitude.

PROPERTY GEOLOGY

The Ymir-Protection (Goodenough) property is underlain by argillites, slates, minor impure quartzite and minor impure limestone of the Ymir Group. The rocks are commonly intruded by lamprophyre, felsite and granite dykes of various size and attitude. The foliation strikes roughly northeast and dips northwest. The structure appears complex on mesoscopic scale and in the underground workings the argillites are observed to be complexly folded.

cont....

PROPERTY GEOLOGY - cont.

The Ymir zone is a quartz-filled shear or fissure striking N 60°E and dipping 60°-70°NW. The vein ranges in thickness from 1 metre to 24 metres, with most exposures being 4 metres thick. Sulphide minerals occur in the vein in lenses, streaks and veinlets; higher grade areas constitute the ore shoots. The Bonanza ore shoot in the Ymir vein had a length of 150 metres, depth of approximately 150 metres, a width of 3 to 24 metres, and ran approximately 0.3 oz/ton gold with approximately 1 oz/ton silver. To date the workings show only low-grade below #7 level.

The Protection (Goodenough) veins have the same strike and dip as the Ymir zone. Though narrower, the Protection veins are of much higher overall grade. Granite dykes appear in various workings cutting the veins and richer shoots are often found at these intersections. Much faulting is present in these zones, both parallel to and cross-cutting. The ore zones range in thickness from a few centimetres to over 2 metres. Surface exposures indicate there are at least two mineralized shear zones.

The veins at the Ymir-Protection (Goodenough) property follow a regional trend; the veins at the Yankee Girl, Dundee, Wesko Mines (to the south) and Ymir-Good Hope, Carthage Mines (to the north) all have similar strikes and dips.

MINERALIZATION

The quartz veins of the Ymir-Protection (Goodenough) zones carry variable amounts of sulphides and carbonates. The gold and silver values usually increase with increasing sulphide content, especially with galena. In order of concentration, the minerals are as follows:

cont....

MINERALIZATION - cont.

1. Pyrite - cubic and cubo-octahedral, sometimes auriferous
2. Galena - both massive, coarse, and fine-grained
  - Protection (Goodenough) zone average...3-4%Pb
  - Ymir zone average .....0.5-2%Pb
3. Cerussite - in oxidized parts of both zones
4. Pyromorphite - sometimes reported to carry high gold values
5. Sphalerite - both coarse and fine-grained
  - Protection (Goodenough) zone average...4-6%
  - Ymir zone average .....0.25-1.25%
6. Pyrrhotite - erratic, minor quantity
7. Tetrahedrite - limited, usually with galena and sphalerite
8. Arsenopyrite - very limited, usually with pyrite

The gangue consists of quartz, minor argillite, minor calcite, tremolite and epidote.

The gold and silver values in both zones appear related to the lead content of the ore, the pyritic quartz often being of low gold grade. The gold was mostly free-milling, largely recovered in the old mills by amalgam.

DISCUSSION

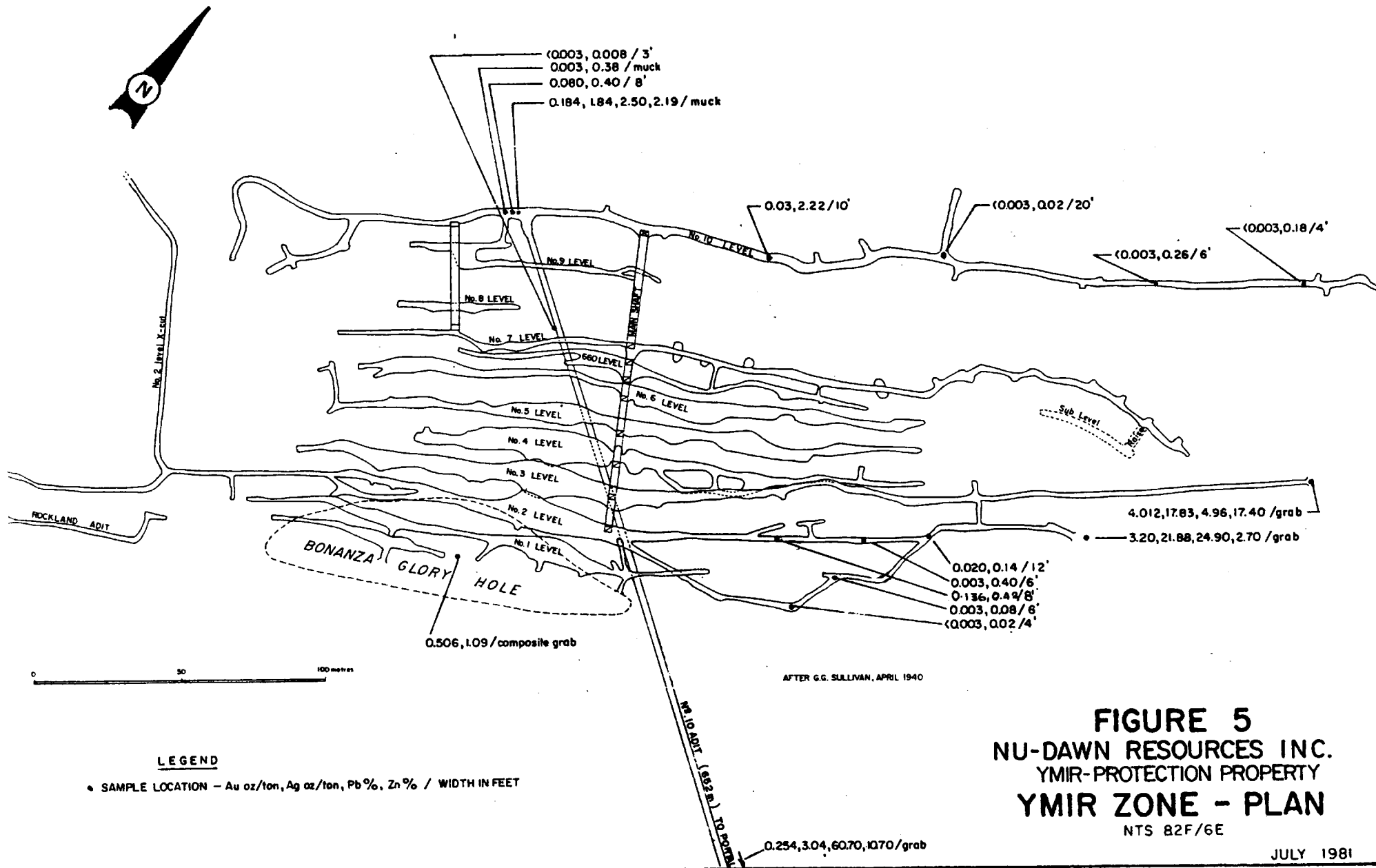
The Ymir-Protection (Goodenough) zones were worked on in two quick phases:

- a) Ymir zone, 304,494 tons, 1899-1908
- b) Protection and Ymir, 52,411 tons, 1935-1940

In 1905 the drop in value of the ore shoots in the vein at the Ymir zone found the management unprepared. In the next few years frantic efforts were made to locate a new vein evidenced by much rich float on the hill above the glory hole. During this search the management ignored the recommendations of their consultant that the potential for further reserves within the Ymir vein had not been

cont...





**LEGEND**

• SAMPLE LOCATION - Au oz/ton, Ag oz/ton, Pb %, Zn % / WIDTH IN FEET

**FIGURE 5**  
**NU-DAWN RESOURCES INC.**  
**YMR-PROTECTION PROPERTY**  
**YMR ZONE - PLAN**  
 NTS 82F/6E

JULY 1981

DISCUSSION - cont.

exhausted. The management chose to explore for a second vein above the glory hole. Their efforts to find the source of the high-grade float were costly and arduous. When the No. 10 level failed to provide sufficient promise of new ore, the mine ceased to operate.

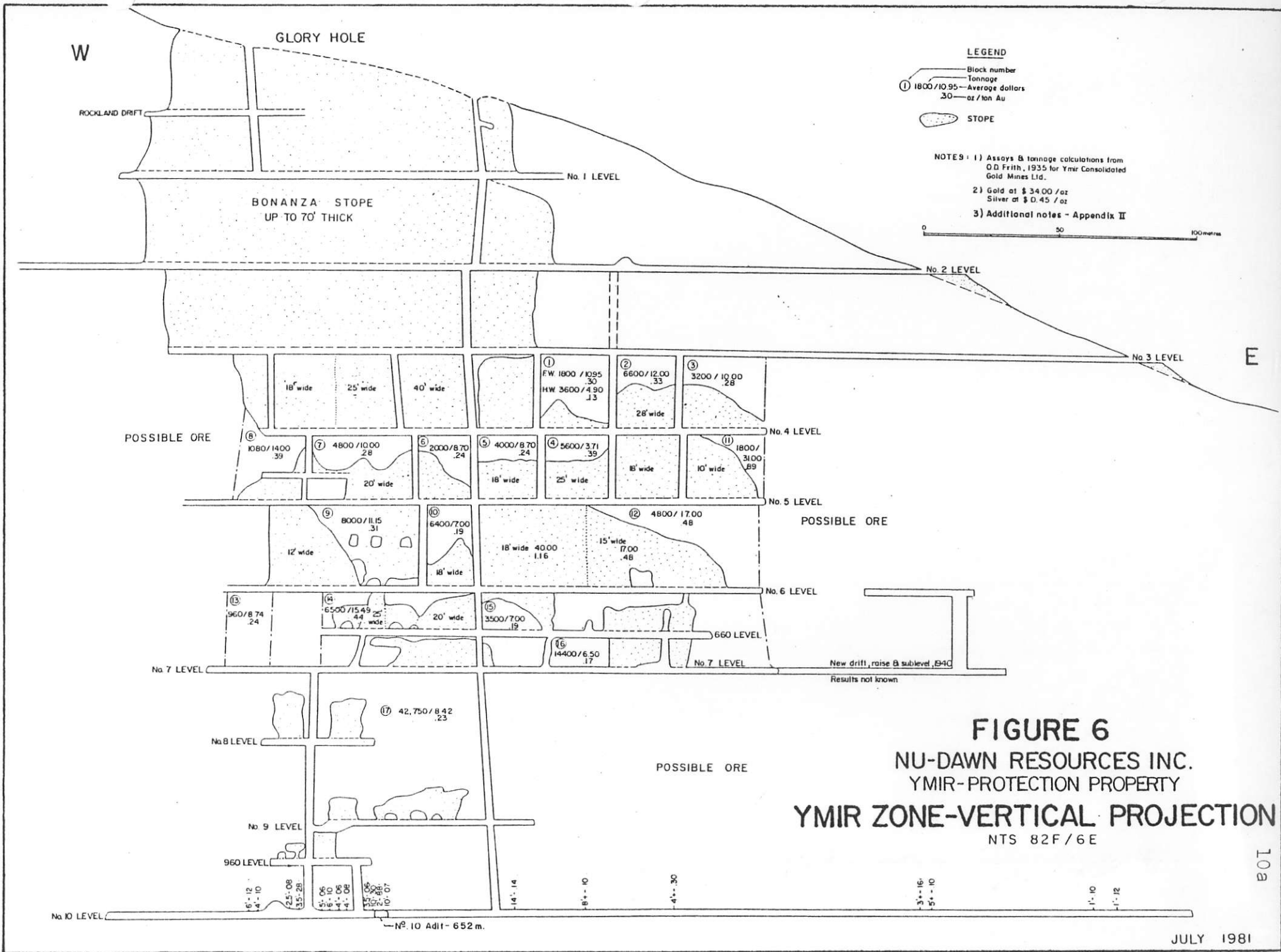
In 1908 the Commissioner, the Geological Survey of Canada, Dr. R. W. Brock, wrote that the search for a parallel vein in the Ymir zone was finally partially successful:

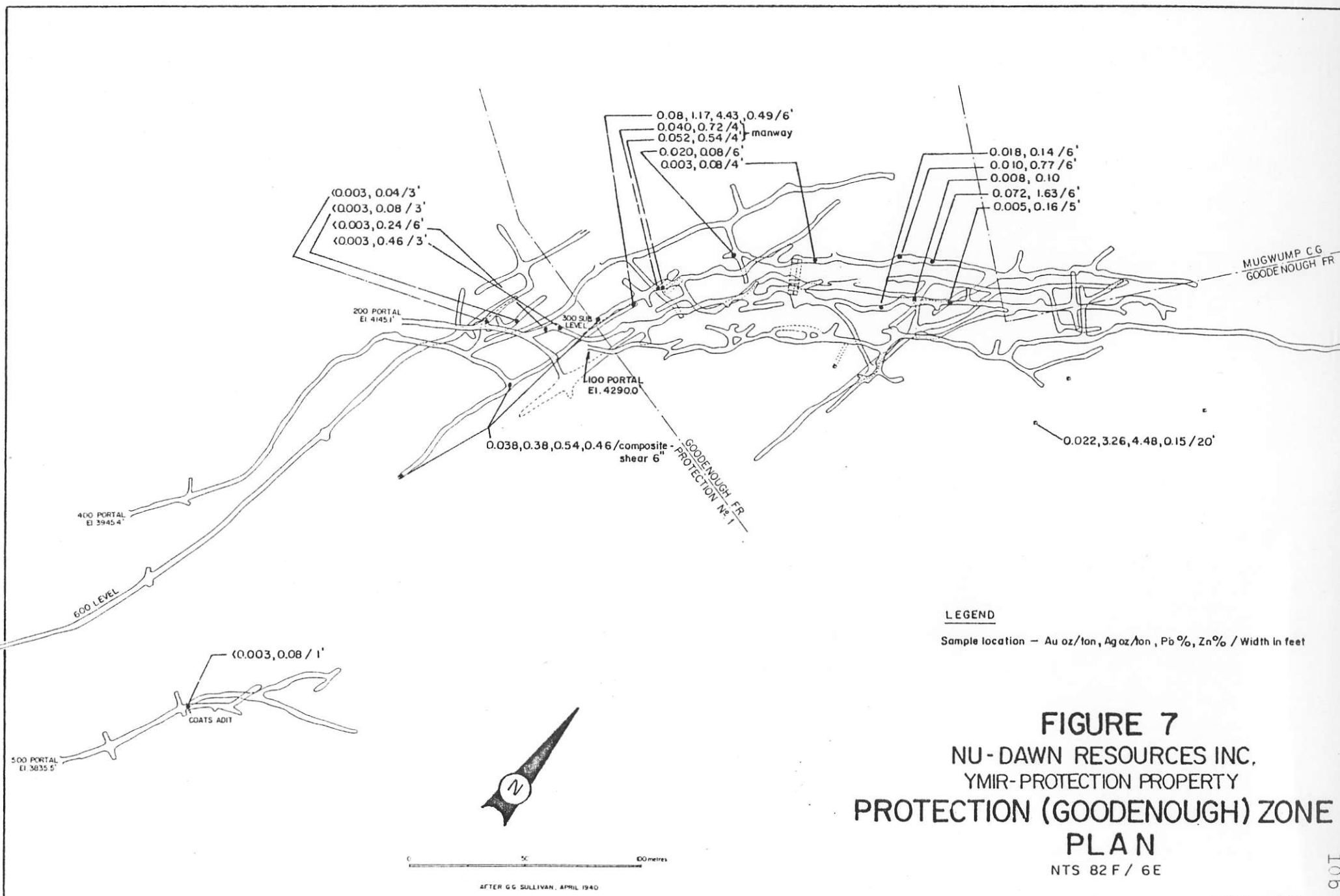
"The second level (blocked after 1908) has been drifted on for 250 feet west of the dyke and then a crosscut 800 feet long has been driven into the hill. At this point broken ground was encountered and a drift run along it with a raise on a bunch of ore .... The float would appear to indicate a point of origin near the edge of the main ore shoot block, about in line with the ore at present being worked at the end of the long crosscut in the second level."

Furthermore, the west end of the vein in No. 10 level ends against a fault; its westward extension towards the Protection (Goodenough) zone has not been located.

During the early 1930's Ymir Consolidated Gold Mines re-opened the Ymir zone workings, commenced development on the Protection (Goodenough) zone and erected a new 100-ton per day concentrator based on ore reserves calculated from sampling which was reported confirmed by Cominco. During this phase production was about 50,000 tons from both zones. The Company ran into difficulties with the low-grade ore at the Ymir zone, small mill capacity, and the 20% royalty on the Protection (Goodenough) zone.

At this stage an apparently unsuccessful attempt was made to locate further ore on the Ymir vein by drifting; development of the Protection zone was suspended even though additional ore had been discovered by diamond drilling below the No. 4 level. The ore found was apparently not sufficiently high-grade for a 100-ton per day operation and the mine was shut down.





**LEGEND**

Sample location - Au oz/ton, Ag oz/ton, Pb %, Zn % / Width in feet

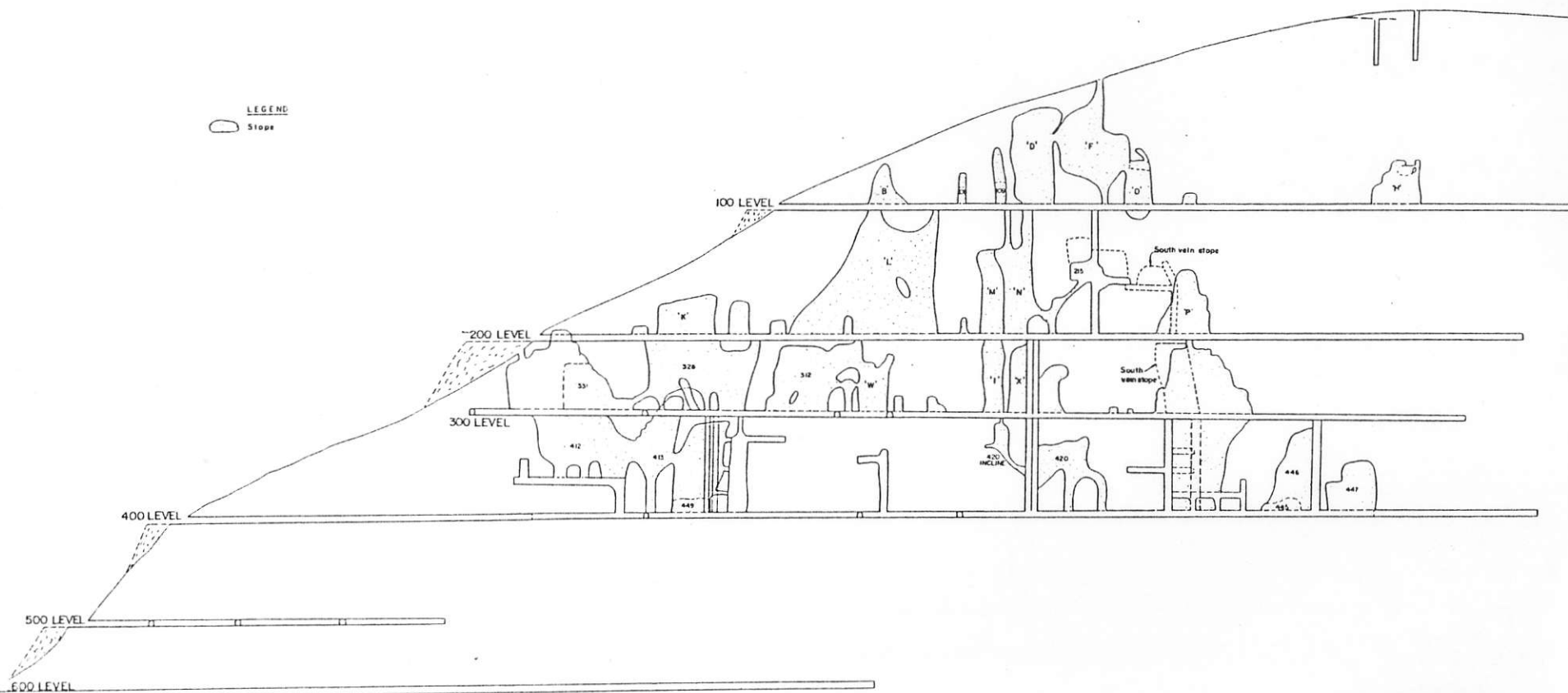
**FIGURE 7**  
**NU - DAWN RESOURCES INC.**  
**YMIR-PROTECTION PROPERTY**  
**PROTECTION (GOODENOUGH) ZONE**  
**PLAN**

NTS 82 F / 6E

JULY 1981

10b

LEGEND  
Slope



0 50 100 metres

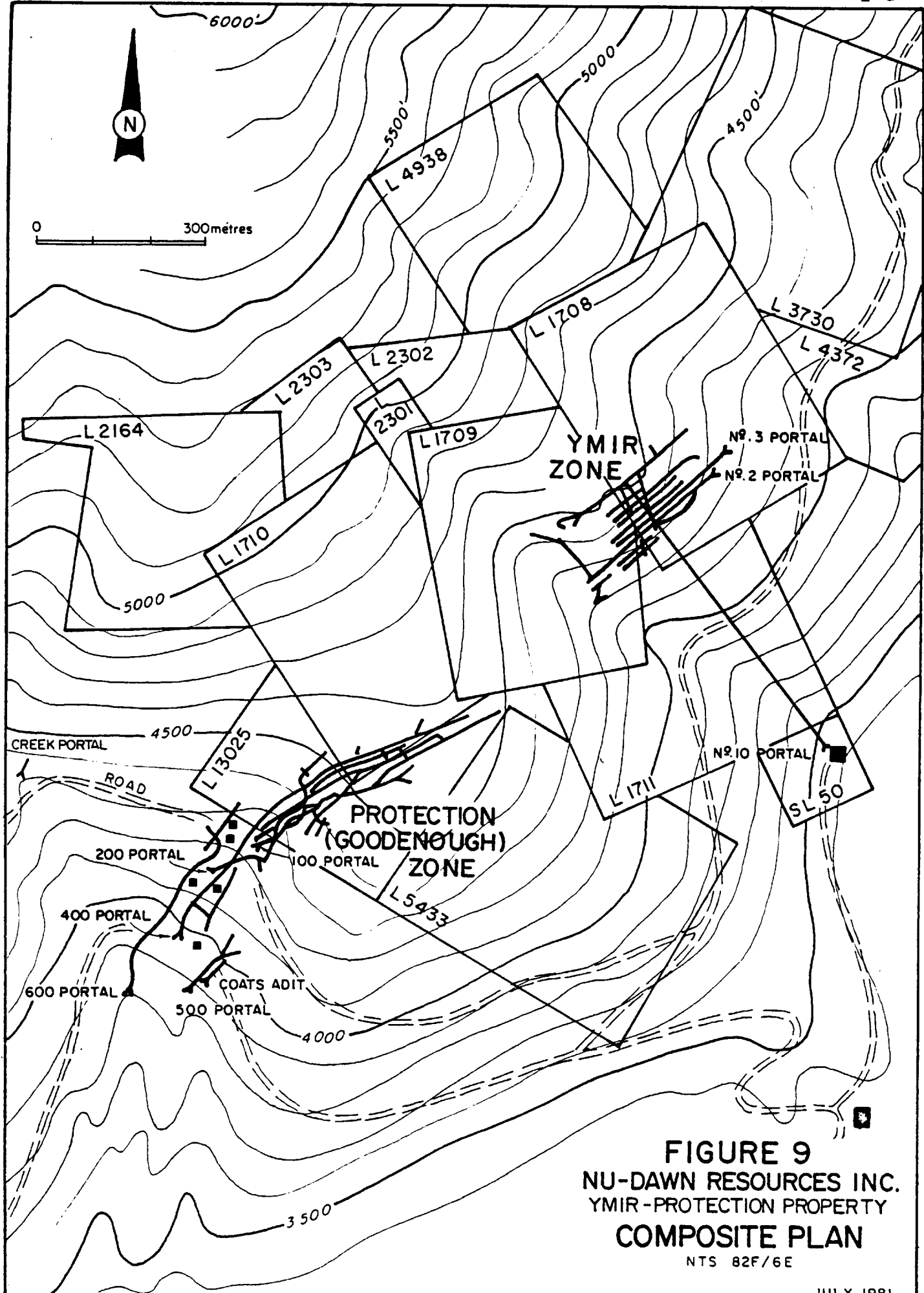
AFTER G. G. SULLIVAN, APRIL 1940

**FIGURE 8**  
NU-DAWN RESOURCES INC.  
YMI-PROTECTION PROPERTY  
**PROTECTION (GOODENOUGH) ZONE**  
**VERTICAL PROJECTION**

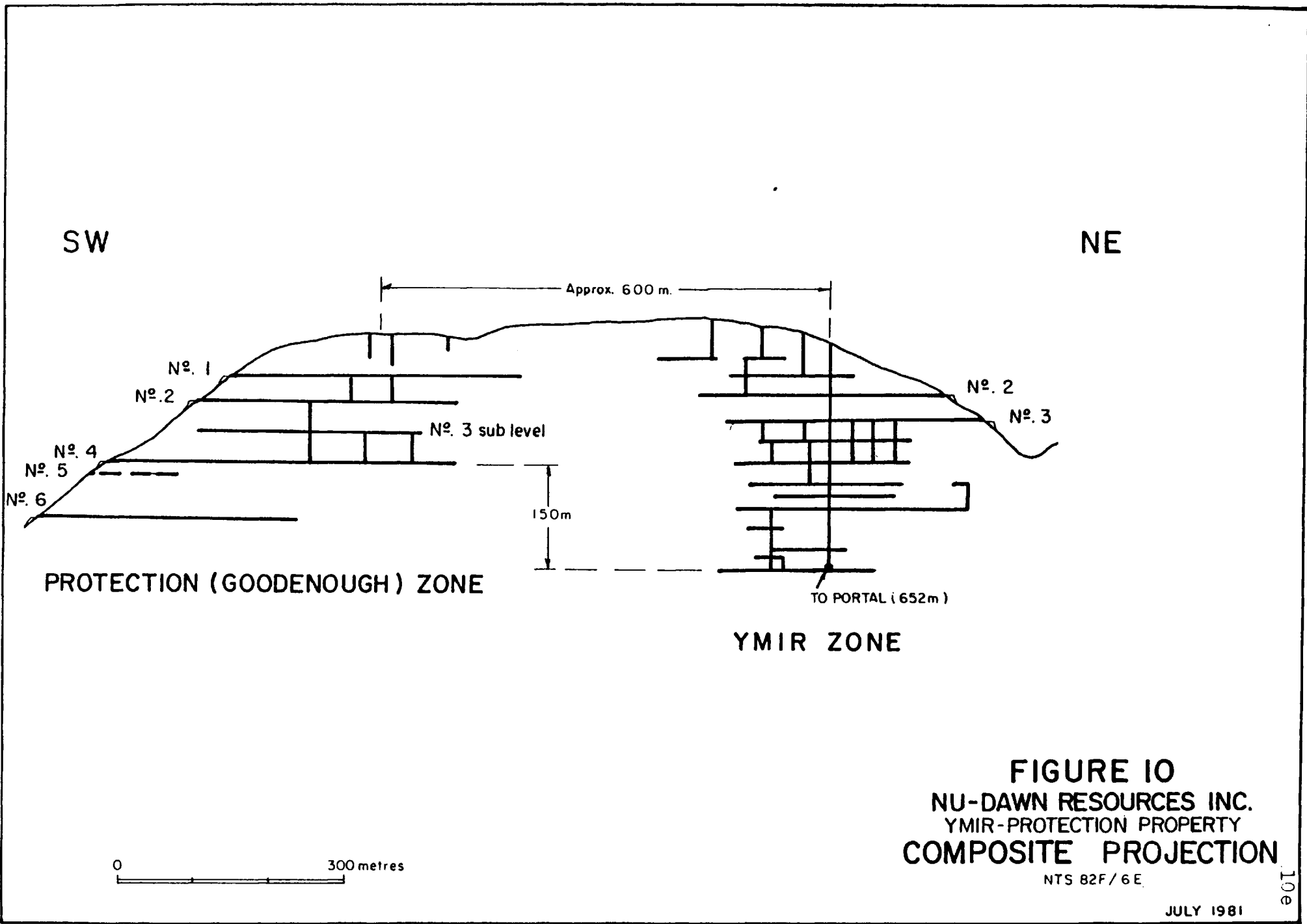
NTS 82F/6E

JULY 1981

100



**FIGURE 9**  
**NU-DAWN RESOURCES INC.**  
**YMIR - PROTECTION PROPERTY**  
**COMPOSITE PLAN**  
 NTS 82F/6E



SW

NE

Approx. 600 m.

Nº. 1

Nº. 2

Nº. 2

Nº. 3

Nº. 3 sub level

Nº. 4

Nº. 5

Nº. 6

150m

TO PORTAL (652m)

PROTECTION (GOODENOUGH) ZONE

YMIR ZONE

0 300 metres

**FIGURE 10**  
**NU-DAWN RESOURCES INC.**  
**YMIR-PROTECTION PROPERTY**  
**COMPOSITE PROJECTION**

NTS 82F/6E

JULY 1981

10e

EXPLORATION PROGRAM

The initial exploration program will consist of the following work:

1. Roads: The road will be upgraded for winter use and culverts installed where necessary.
2. Camp: A camp will be established at the No. 10 portal on the Ymir zone.
3. Underground: The first phase of underground work will involve extensive rehabilitation to provide access to seven levels of the Ymir zone and all levels of the Protection (Goodenough) zone, to allow entrance for geological mapping and sampling in preparation for subsequent drilling and ore reserve estimation.

Minor rock falls in the adits and major blocking of the drifts at collapsed ore chutes have prevented more extensive sampling and mapping. Much of the timber work in the stopes and manways is unsafe. The property has a total of 5038 metres of horizontal workings and 2900 metres of raises.

The main Ymir zone was estimated by operators and consulting engineers in the late 1930's to have had in excess of 120,000 tons of \$9.84 per ton ore. The bulk of this tonnage remains in place.

The Protection (Goodenough) zone has a smaller tonnage exposed in existing workings. (See Appendix II)

4. Sampling: After rehabilitation, all accessible underground workings will be mapped and sampled. Percussion drill holes can be driven into the walls where the full width of the vein is unknown.
5. Geological: A set of geological, structural and assay plans and sections will be produced as a guide for further exploration and drilling.

cont...



EXPLORATION PROGRAM - cont.

6. Diamond Drilling: 7000 feet of underground drilling is proposed, to test the horizontal and down-dip extensions of veins.

7. Surface:

All dumps, tailings ponds and surface showings will be trenched and sampled.

The Protection (Goodenough) zone extends northeast into the Mugwamp Crown Grant claim; there are 400 unexplored metres between these workings and those of the Ymir zone. The Protection (Goodenough) zones also extend south into the Ymir Creek valley. Other parallel veins are exposed in old workings to the west above the Ymir valley. A detailed examination of the above ground will be undertaken during Phase II of the exploration program, contingent upon the results of the underground work.

COST ESTIMATES

1. EQUIPMENT:	
- 2 used Tugger Hoists	\$ 2,000
- 2 Compressors, 1100 C.F.M.	30,000
700 C.F.M.	25,000
- 1 Generator, 50-60 K.V.A.	20,000
- Mucking machine, EMCO 12B	15,000
- 1 Battery Loco & Charger	15,000
- 2 Stoppers (JOY)	7,000
- 2 Jacklegs (JOY)	8,000
- General hardware: tanks, tools, welder, fire equipment etc.	7,000
- 2000 metres airline, 6", 4", 2" steel	19,000
- 1200 metres waterline, 1" steel-plastic	3,000
- Timber: rail ties, ladders, manway planks, etc.	36,000
- Track: 800 ft. 20 lbs, 100 ft. 30 lbs	8,000
	<hr/>
Sub total ..	\$195,000
2. OPERATING COSTS:	
- Fuel (6 mos.) Diesel, truck gas, heating oil, etc.	60,000
- Roads: rehabilitation, culverts, snow- plowing etc.	17,000
- Camp: Construction, equipment, supplies	25,000
- Equipment mobilization	3,000
- Transportation: 4x4 truck, airline, shipping, etc.	16,000
	<hr/>
Sub total ..	\$121,000
3. WAGES: 6-8 men (6 mos.) taxes, insurance etc.	160,000
4. SURVEYS (Mine)	5,000
5. ASSAYS, core boxes, etc.	9,000
6. DIAMOND DRILLING: AQ wireline @ \$19/ft.	95,000
EXK @ \$14/ft.	28,000
7. SUPERVISION, Consultant, engineering	20,000
	<hr/>
TOTAL .....	\$633,000
Contingencies 15%	95,000
	<hr/>
Grand Total Estimated Cost, Phase I, ...	\$728,000
	<hr/> <hr/>

The exploration program, as outlined above, is scheduled to start in the late Fall of 1981 and should require approximately six months to complete.

E. P. Sheppard

E. Percy Sheppard, P.Eng.  
Consulting Geologist

*EPSheppard*

Vancouver, B.C.  
July 31, 1981

\* \* \*

C E R T I F I C A T E

I, E. PERCY SHEPPARD, of the City of Vancouver, in the Province of British Columbia, hereby certify THAT:

I am a Consulting Geologist at 1606-M, 1600 Beach Avenue, Vancouver, B.C., V6G 1Y7;

I am a graduate of Dalhousie University, with a B.Sc. in Geology, and have been active in mining exploration and geophysics for over forty years; Data for this report were obtained during visits to the property on April 2 and July 7-11, 1981, and a study of numerous pertinent Government reports, old mine records, maps and sections;

I have no direct or indirect interest in the property covered by this report, nor in the securities of Nu-Dawn Resources Inc., and do not expect to receive any such interest as a result of writing this report;

I am a member of the Professional Engineers Association of British Columbia, the American Institute of Mining Engineers, and a Fellow in the Geological Association of Canada.

DATED AT VANCOUVER, B.C., this 31st DAY OF JULY, 1981.

E. P. Sheppard  
E. Percy Sheppard, P.Eng.

---  
Permission is hereby given to have the material in the foregoing report used in a Prospectus or Statement of Material Facts of Nu-Dawn Resources Inc.

E. P. Sheppard  
E. Percy Sheppard, P.Eng.  
Consulting Geologist

*E. P. Sheppard*

ASSAYS AND DESCRIPTIONS

SAMPLE NO.	LOCATION	GOLD OZ/TON	SILVER OZ/TON	LEAD %	ZINC %	DESCRIPTION	1.
GOOD 1	PROTECTION	0.004	0.37	0.36	0.21	Quartz Pyrite vein, 2 feet wide, road cut above Coat's adit	
2	"	0.007	0.33	0.39	0.50	Pyritic Argillite between veins, road cut above Coat's adit	
3	"	0.150	0.98	2.20	2.85	Quartz-Sulphide vein, 1/2 foot wide, road cut above Coat's adit	
4	"	0.087	2.90	2.20	2.09	Quartz-Sulphide vein, 5 feet wide at #5 portal	
5	"	0.040	0.10	0.05	0.03	Quartz vein, 6 feet wide, at fork #5 adit	
6	"	0.004	0.05	<0.01	0.01	Quartz vein, 5 feet wide, end of left fork #5 adit	
7	"	0.040	0.85	0.21	2.50	Quartz-Sulphide vein, 6 feet wide, at stope right fork #5 adit	
GD 1	"	1.620	6.07	4.40	1.79	Random Sample, #1 level dump, east half	
2	"	0.020	0.37	0.20	0.43	Random Sample, #1 level dump, west half	
3	"	0.640	2.17	4.00	2.04	Grab Sample, #4 level dump	
4	"	0.100	2.97	1.80	2.16	Grab Sample, Coat's dump	
5	"	0.260	0.90	1.61	1.44	Grab Sample, #6 level dump	
6	"	0.085	0.33	0.30	0.26	Random Sample, #2 level ore chutes	
7	"	0.100	0.73	1.20	0.68	Poorly mineralized rock, #4 level dump	
24551	"	<0.003	0.24	0.02	0.07	6' wide	
24552	"	<0.003	0.46	0.01	0.01	3' wide	
24553	"	<0.003	0.04	<0.01	0.04	3-1/2' wide	
24554 )	"	0.038	0.38	0.46	0.54	Composite, shear with minor quartz and sulphides #4 level - Average 5-1/2' wide	
24555 )							
24556 )							
24557	"	<0.003	0.08	0.02	0.02	3' wide	

ASSAYS AND DESCRIPTIONS

SAMPLE NO.	LOCATION	GOLD OZ/TON	SILVER OZ/TON	LEAD %	ZINC %	DESCRIPTION	2.
24558	PROTECTION	0.018	0.14	0.05	0.04	5' wide	
24559	"	0.008	0.10	0.05	0.06	6' wide	
24560	"	0.005	0.16	0.09	0.07	6' wide lens	
24561	"	0.010	0.77	0.69	0.04	7' wide	
24562	"	0.003	0.08	0.06	0.28	6' wide	
24563	"	0.020	0.08	0.03	0.08	7' wide	
24564	YMIR #10	0.080	0.40	0.07	0.27	10' wide	
24565	"	0.184	1.84	2.19	2.50	Muck pile	
24566	"	0.003	0.38	0.12	0.15	Muck pile	
24567	"	< 0.003	0.18	0.05	0.07	4' wide	
24568	"	< 0.003	0.26	0.01	0.01	6' wide	
24569	"	< 0.003	0.02	0.03	0.05	20' wide	
24570	"	0.003	2.22	0.65	0.31	10' wide	
24571	PROTECTION 4	0.072	1.63	0.81	2.29	4' wide	
24572	PROTECTION 3	0.008	1.17	0.49	4.43	6' wide	
24573	PROTECTION	0.040	0.72	0.64	0.82	7' wide, manway 50' up	
24574	"	0.052	0.54	0.36	0.12	7' wide, manway 20' up	
24575	"	< 0.003	0.08	0.01	0.09	2' vein, portal Coat's adit - with malachite	
24576	YMIR #10	< 0.003	0.08	< 0.01	0.11	4' quartz lens, in crosscut	
24577	YMIR #2	< 0.003	0.02	< 0.01	0.02	4' mixed quartz/argillite	
24578	"	0.003	0.08	< 0.01	0.01	6' mixed quartz/argillite	
24579	"	0.136	0.42	0.39	0.14	8' quartz	
24580	"	0.003	0.40	0.19	0.06	6' quartz	
24581	"	0.020	0.14	0.01	0.02	12' quartz	

ASSAYS AND DESCRIPTIONS

SAMPLE NO.	LOCATION	GOLD OZ/TON	SILVER OZ/TON	LEAD %	ZINC %	DESCRIPTION	3.	
24582	YMIR CREEK	0.044	0.42	0.26	0.92	Tailings 0' - 3' split tube sample		
24683	"	0.040	0.36	0.27	1.01	Tailings 0' - 3' split tube sample		
24584	"	0.052	0.41	0.27	1.15	Tailings 0' - 3' split tube sample		
24585	PROTECTION	0.022	3.26	4.48	0.15	Workings above #1 - Quartz-sulphide vein, 25' composite grabs		
24586	YMIR GLORY HOLE	0.506	1.09	0.53	0.03	Grabs - quartz-sulphide rock		
24587	YMIR #10	0.254	3.04	60.70	10.70	Grabs from dump		
24588	YMIR #3	4.012	17.83	4.96	17.40	Grabs from dump		
24589	YMIR #2	3.200	21.88	24.90	2.70	Grabs from dump		
-----								
NOTE 1:	Samples	GOOD 1-7	Taken by M. DeQuadros - February 22, 1981 Assays by Bondar-Clegg Labs					
NOTE 2:	Samples	GD 1-7	Taken under supervision of E. P. Sheppard, P.Eng. Assays by Bondar-Clegg Labs					
NOTE 3:	Samples	24551 to 24589	Taken under supervision of E. P. Sheppard, P.Eng. Assays by Chemex Labs					



# CHEMEX LABS LTD.

212 BROOKSBANK AVE  
NORTH VANCOUVER, B.C  
CANADA V7J 2C1

TELEPHONE: (604)984-0221

TELEX: 043-52597

• ANALYTICAL CHEMISTS

• GEOCHEMISTS

• REGISTERED ASSAYERS

## CERTIFICATE OF ASSAY

TO : NU-DAWN RESOURCES  
2130 JONES AVE.  
NORTH VANCOUVER, B.C.  
V7M 3E7

CERT. # : A8112310-001-A  
INVOICE # : 18112310  
DATE : 28-JUL-81  
P.O. # : NONE

ATTN: E. PERCY SHEPPARD

Sample description	Prep code	Pb percent	Zn percent	Ag (FA) oz/t	Au (FA) oz/t	Weight grams	
24551	207	0.02	0.07	0.24	<0.003	2480	--
24552	207	0.01	0.01	0.46	<0.003	2925	--
24553	207	<0.01	0.04	0.04	<0.003	2190	--
24554+55+56	207	0.46	0.54	0.38	0.038	6000	--
24557	207	0.02	0.02	0.08	<0.003	2640	--
24558	207	0.05	0.04	0.14	0.018	2675	--
24559	207	0.05	0.06	0.10	0.008	2725	--
24560	207	0.09	0.07	0.16	0.005	2975	--
24561	207	0.69	0.04	0.77	0.010	3095	--
24562	207	0.06	0.28	0.08	0.003	3045	--
24563	207	0.03	0.06	0.08	0.020	3135	--
24564	207	0.07	0.27	0.40	0.080	3560	--
24565	207	2.19	2.50	1.84	0.184	2360	--
24567	207	0.12	0.15	0.38	0.003	1445	--
24567	207	0.05	0.07	0.18	<0.003	2390	--
24568	207	0.01	0.01	0.26	<0.003	1890	--
24569	207	0.08	0.03	0.02	<0.003	2665	--
24570	207	0.65	0.31	2.22	0.003	1645	--
24571	207	0.81	2.29	1.63	0.072	2430	--
24572	207	0.49	4.43	1.17	0.008	2835	--
24573	207	0.64	0.82	0.72	0.040	1880	--
24574	207	0.36	0.12	0.54	0.052	2630	--
24575	207	0.01	0.09	0.08	<0.003	2560	--
24576	207	<0.01	0.11	0.08	<0.003	2295	--
24577	207	<0.01	0.02	0.02	<0.003	2000	--
24578	207	<0.01	0.01	0.08	0.003	2760	--
24579	207	0.39	0.14	0.42	0.136	2730	--
24580	207	0.19	0.06	0.40	0.003	2510	--
24581	207	0.01	0.02	0.14	0.020	2670	--
24582	207	0.26	0.92	0.42	0.044	1455	--
24583	207	0.27	1.01	0.36	0.040	1425	--
24584	207	0.27	1.15	0.41	0.052	1390	--
24585	207	4.48	0.15	3.26	0.022	3085	--
24586	207	0.53	0.03	1.09	0.506	2770	--
24587	207	60.70	10.70	3.04	0.254	1820	--
24588	207	4.96	17.40	17.83	4.012	1875	--
24589	207	24.90	2.70	21.88	3.200	1835	--

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NOTES REGARDING FIGURE 6  
YMIR ZONE - VERTICAL PROJECTION

1. Figure based upon assay plans and calculations dated January 31, 1935, submitted by O.D.Frith, Manager, Ymir Consolidated Gold Mines, to B.C.Dept. of Mines. These maps gave values in dollars and in oz/ton for Au and Ag.
2. TABLE by Frith on plan gives the following calculations:

<u>BLOCK</u>	<u>TONNAGE</u>	<u>AVERAGE</u>	<u>TOTALS</u>
1 (FW)	1800	\$10.95	\$ 19,710.00
1 (HW)	3000	4.90	17,640.00
2	6600	12.00	79,200.00
3	3200	10.00	32,000.00
4	5600	13.71	76,770.00
5	4000	8.70	34,800.00
6	2000	8.70	17,400.00
7	4800	10.00	48,000.00
8	1080	14.00	15,120.00
9	8000	11.15	89,200.00
10	6400	7.00	44,800.00
11	1800	31.00	55,800.00
12	4800	17.00	81,600.00
13	960	8.74	7,890.00
14	6500	15.49	100,685.00
15	3500	7.00	24,500.00
16	14400	6.50	93,600.00
17	42750	8.42	359,995.00
<hr/>			
TOTAL	121790	\$9.84	\$1,198,676.00

Note by Frith indicates widths considerably greater but due to lack of crosscuts, only exposed widths used in calculations.

Gold computed at \$34.00 per ounce and silver at 45¢ per ounce.

3. Plan submitted by Sullivan, 1940, shows that approximately 70% of Block 9; 60% of Block 14; 40% of Block 16; 25% of Block 17 were stoped prior to final shutdown, giving a production of approximately 26,000 tons during the period 1936-1940. This value appears to fit in with known production of the Ymir-Consolidated Mines; the tonnage remaining in the mine, from Frith's calculations, should therefore be approximately 95,000 tons.
4. Due to rotted and collapsed timberwork in the manways, the writer was unable to examine intermediate levels of the mine to ascertain these values and calculations.

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UNPUBLISHED MAPS AND PLANS

B.C.Dept. of Mines, Inspection Branch, Victoria

- Microfilm No. 61803: Vertical Projection Assay Map Levels 4-10, Ymir, O.D. Frith, 1934
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