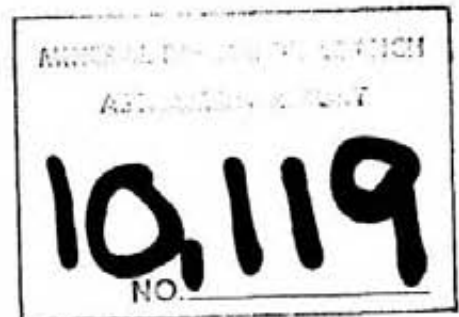


82-43-10119

GEOLOGICAL AND SUMMARY REPORT
ON THE
PROSPERITY-PORTER IDAHO MINE
ENCOMPASSING RYAN AND CANAL MINERAL CLAIMS
SKEENA MINING DIVISION
55° 54' N. Lat., 129° 57' W. Long.
103P/13W

Owned and Operated by
PACIFIC CASSIAR LIMITED

REPORT BY
J.M. Kenyon, P. Geol.



Richmond, B.C.

January, 1982

Table of Contents

	<u>page</u>
Introduction.....	1
Previous Work.....	1
Location and Access.....	2
Topography and Climate.....	2
Geology.....	4
Local.....	4
Structure.....	6
Vein Geology.....	6
Mineralization.....	8
1981 Underground Exploration.....	9
Assay Procedure.....	11
Results.....	12
Summary and Recommendations.....	12
References.....	14
Certificate.....	16
Statement of Costs.....	17

Illustrations

Figure 1 - Claims Location.....	3
Map 1 - Underground Layout.....	in pocket
Map 2 - Surface Geology.....	in pocket
Map 3 - Prosperity Vein 305 S. Geology.....	in pocket
Map 4 - Prosperity Vein 305 S. Drill Results...	in pocket

Appendix

- Appendix I - Pacific Cassiar claim holdings
- Appendix II - Prosperity Vein sludge assays

INTRODUCTION

During the period of June 22 to October 8, 1981, Pacific Cassiar Limited carried out a program of geological reconnaissance, mine rehabilitation and underground percussion drilling on its wholly owned Prosperity-Porter Idaho mine site at Stewart, B.C. An underground mining crew sub-contracted from Guhr Construction Ltd. of Delta, B.C. rehabilitated the 301 haulageway to permit geological mapping and limited percussion drilling of the 305 S. drift on the Prosperity vein. Geological examination and supervision was provided by J.M. Kenyon, J.A. Greig and W.E. Clarke. The program successfully demonstrated that previous mining had concerned itself with narrow highgrade lenses contained within a much larger, well mineralized vein width. The existence of these vein widths may have a significant impact on future economic proposals for the property.

PREVIOUS WORK:

The property comprises 46 crown granted mineral claims, 1 reverted crown grant claim, 3 staked Canal fractional claims and the, 4 unit Ryan claim as detailed on the location map. This property was in production from late 1928 until the spring of 1931 during which time approximately 30,000 tons of sorted ore was shipped via an aerial tramway to tidewater and barged from there to the smelter at Tacoma, Washington. Production records indicate the ore contained 2,336,482 ounces of silver, 57,679 pounds of copper, 3,002,997 pounds of lead, 16,495 pounds of zinc and 840 ounces of gold. The zinc content of the ore was a smelter penalty at that time and generally not recovered.

Apart from sporadic examinations between 1947 and 1970, little definitive work had been performed since mine closure. In 1975, Seaforth Mines Ltd. drilled 3 holes to test the vertical extension of one ore shoot with mixed results. In 1980 and 1981, Pacific Cassiar Limited commenced a program of rehabilitation to permit evaluation of the vein systems in light of re-interpretation of old data, and enhanced silver prices.

An adequate history of early development of the area is available in B.C. Minister of Mines Annual Reports from 1925 to 1932, 1947 to 1950 and 1952, 1955 and 1963 to 1968. Additional pertinent references are appended to this report.

LOCATION AND ACCESS:

The mine site area is located on the eastern flank of Mt. Rainey approximately 6 kilometers southeast of the town of Stewart, B.C. which is located on tidewater at the head of Portland Canal. The co-ordinates for the centre of the mine site are 55° 54' latitude and 129° 57' longitude. Current access to the property is entirely by helicopter from Stewart, although overgrown pack horse trails follow a much longer route from Stewart to the Marmot River and then up Kate Ryan Creek to the mine site.

The mine workings extend from 1287 meters (4,222 feet) to 1707 meters (5,600 feet) above sea level, and the current exploration activity is centered at 1550 meters (5,085 feet) elevation. Map 1 (in pocket) presents a surveyed layout of the underground workings.

TOPOGRAPHY & CLIMATE:

Mount Rainey rises to 1950 meters and is capped by ice fields which in places, descend to 1150 meters elevation. The country is rugged and a typical coast range climate results in long periods of fog and low cloud in the valleys which limits flying conditions. The extensive Cambria icefield begins several kilometers east of the property and differential ground heating conditions result in periods of high winds down Kate Ryan Creek valley. Winter snow fall is heavy and generally remains on the ground until early June, and returns in the latter part of October. The reported average precipitation at Stewart is 178 centimeters per year.

TO WEST SEE MAP 1030/16E

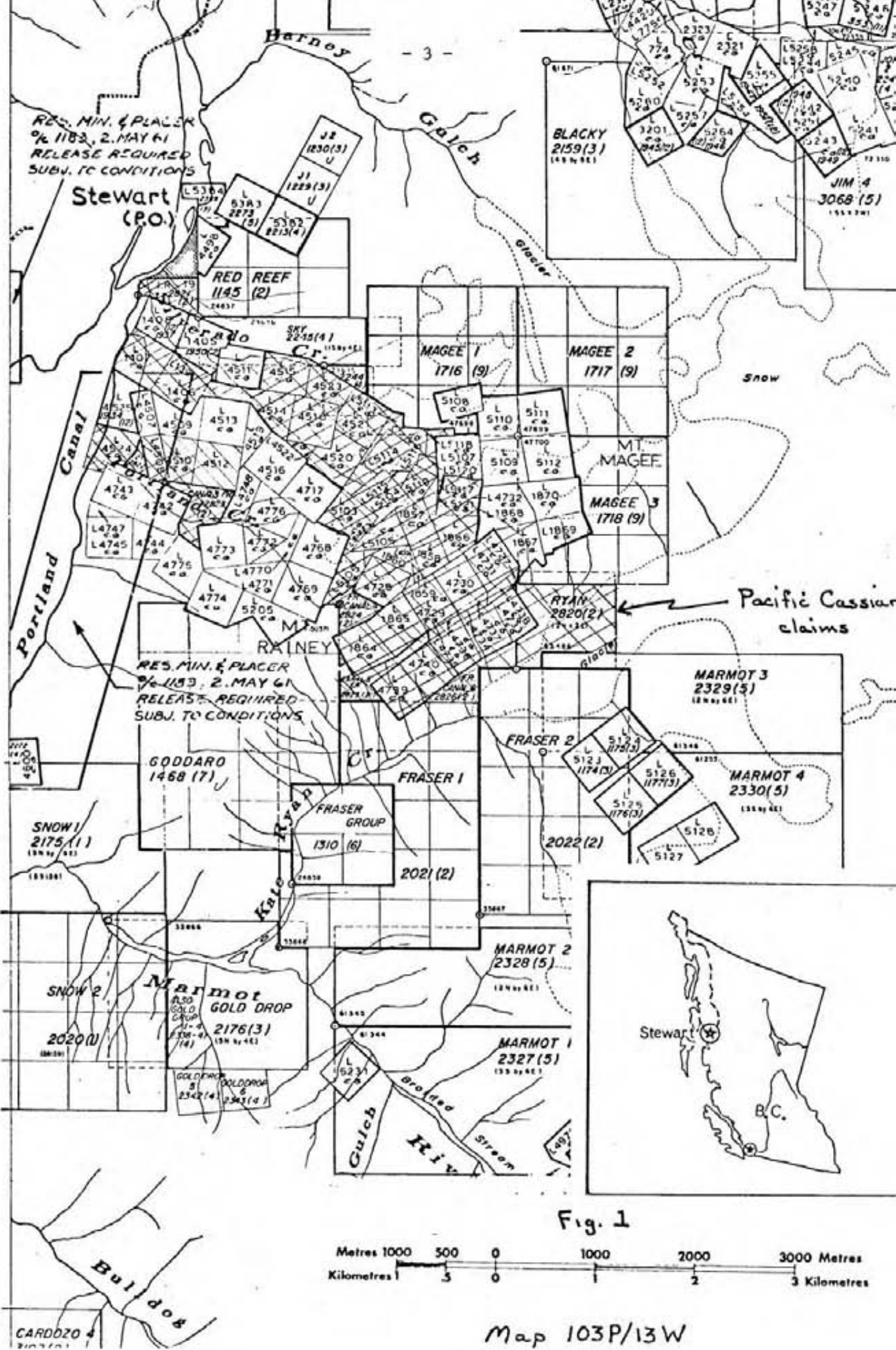


Fig. 1

Metres 1000 500 0 1000 2000 3000 Metres
 Kilometres 1 5 0 1 2 3 Kilometres

Map 103P/13W

GEOLOGY

GENERAL:

The Stewart area has been the focus of much mining attention since the early 1900's and several writers have summarized the general geological characteristics of the district, which summaries have been adequately updated and redefined by Groves (1971).

A basically non-marine (Groves 1971) assemblage of Jurassic volcanic and sedimentary rocks have been intruded by Jurassic to Tertiary plutons and dike swarms giving rise to replacement and fissure vein deposits that are precious metals-rich. The Hazelton group and to a lesser extent, the Bowser group are the predominant host units for the precious and base metal veins. Resurgent periods of folding and faulting have provided channelways for hydrothermal solutions with localized vein flexures generally confining economic ore shoots.

Groves (1971) believes most of the Hazelton volcanic rocks are epiclastics deposited from previous flows and breccias, rather than primary pyroclastics. The writer does not agree with this assessment of the Prosperity-Porter Idaho area.

LOCAL:

Despite the 56 year history of the property, little detailed geological study has been carried out. Minor mapping of underground workings related entirely to the production period of 1929-1931 until recent reappraisal of the area. Surface mapping has been of a reconnaissance nature as presented on Map 2 (in pocket).

All currently known potentially economic mineral occurrences are contained within the Hazelton assemblage of volcanic and minor sedimentary rocks. The Hazelton rocks are comprised chiefly of

andesitic volcanic breccias and tuffs (pyroclastics) of andesitic to possible rhyolitic composition. Minor discontinuous volcanic sandstones, siltstones and sandy carbonates are interlayered within the pyroclastic sequence, suggesting subaqueous conditions and periods of volcanic quiescence.

The volcanic pyroclastic rocks have not yet been subdivided. They are generally green to green-gray in colour on fresh surfaces and weathered outcrops are dark green. Fragment sizes vary from 1-2 cm to greater than 15 cm, and are contained within a finer-grained matrix of andesitic volcanic rock. White feldspar phenocrysts of andesitic composition (Groves 1971) are apparent in both fragments and matrix and range in size up to 5 cm. They occupy varying proportions of the sequence and average about 5%. Pyrrhotite, and lesser pyrite are constant constituents of trace to several percent by volume. No obvious attitudes are apparent in pyroclastic rocks.

The tuffaceous units are generally well-bedded and fine to medium grained. Outcrops weather a buff brown colour and may have a spotted appearance due to occasional small feldspar clasts or phenocrysts. Fresh surfaces are generally a greenish-grey colour. Attitudes vary between 015° to 025° strike with 50° westerly to vertical dips. The rock is well-jointed and resistant and often forms small, steep cliff faces. The tuffs appear to be more acidic than the pyroclastic units although no specific determinations have been made.

Of limited exposure, are several tuffaceous rhyolite outcrops. They are well-foliated, grey-white weathering with a light grey colour on fresh exposures. Sulphides, chiefly fine grained pyrite, are well distributed through the exposures and appear to be essentially syngenetic. Some randomly selected samples have a silver content to several ounces per ton, along with minor lead and zinc values.

Interbedded, thin and discontinuous sedimentary rock units include volcanic sandstones, sandy carbonates and siltstones. Where measurable, their attitudes coincide with the range of measurements available for the bedded tuffs. The sedimentary rocks are recessive weathering and not well exposed. They have not been encountered underground.

Granitic intrusives and dike swarms as mapped by Groves (1971) are mostly outside the property limits and have not been encountered in reconnaissance mapping.

The Bowser sedimentary assemblage is known to outcrop on the north eastern portion of the claim group but has not been examined.

STRUCTURE

Groves (1971) mapping indicates the property to be on the south limb of an overturned syncline plunging to the northeast. Specific mapping has not altered this assessment.

The mineralized vein systems are at present thought to occupy shear zones which have had repetitive movement. Fault attitudes display two specific trends, one of which parallels the veins at 330° to north strike and 40° to 60° west dip and a crosscutting fault system at roughly an east-west strike and steep northerly dip. The faults are normal, with some considerable strike slip movement which has not been measured. The east-west set of faults disrupts the veins and are therefore later events.

VEIN GEOLOGY

Five potentially economic, silver-bearing veins are known on the property. Early, high grade shipments of ore from two of the veins lead to the production development of the property in 1928. Three

of the five veins have had some underground production and the remaining two veins have several short exploration adits driven on high grade surface showings.

The five veins in rough order of importance are:

1. 'D'
2. Prosperity
3. Blind
4. Angelo
5. Wake

The first three veins in the above list have had past production and development and are the focus of current exploration attention.

The veins are roughly parallel to each other and spaced at approximate 150 meter intervals. They trend 340° to 360° with an average 55° westerly dip. The veins are thought to occupy shear zones that have had several periods of movement and perhaps several periods of mineralization.

On the surface, the veins are marked by a heavy manganese stain extending outward from the vein for several meters in some cases and are traceable for this aspect, as the mineralized portions are for the most part recessive weathering. Total surface widths are often indistinct and are only measurable on the 'D' vein in two locations where it averages 5 meters. Old exploration trenches which may have exposed other vein widths have all sloughed in.

Underground, timbering is extensive due to the sheared nature of the veins making mapping difficult. However, based upon examination of crosscuts and more competent sections of the veins they appear to be composed of sheared volcanic rock chiefly pyroclastics, admixed with crushed quartz and carbonate. The carbonate is probably ankeritic due to the heavy manganese staining evident

even at the lowest worked levels. Limonite occurs on fracture planes and where extensive, completely coats rock fragments.

The veins display well-defined hangingwalls and less distinct footwalls often marked by black or green gouge. However, repeated movement of the shears has produced false hangingwalls and footwalls within the true vein width which often served as a competent mine back during the development period. It is for this reason that the true vein widths were not determined until recently.

The 'D' vein has been traced on surface for nearly 1000 meters and is mineralized at both extremities. The Blind and Prosperity veins have been traced on surface for about 500 meters. The underground exploration of the 'D' vein is approximately 500 meters and on the Blind vein about 400 meters, and 600 meters on the Prosperity vein. Only the 'D' vein is accessible over its entire underground length with the Prosperity and Blind veins having one-quarter or less of their development length currently accessible.

MINERALIZATION:

The veins are silver deposits. Economic minerals are argentiferous galena, pyrargerite, polybasite, tetrahedrite, freibergite, and native silver as reported by various investigators although galena is the most abundant. Sphalerite and minor chalcopyrite are accompanying constituents. Pyrite is a very minor component.

Higrade bands or lenses of the above minerals usually occur near the hangingwalls and footwalls over widths of from 20 to 60 cm, in each band. The intervening vein material contains irregular streaks and disseminations of the same mineralization. As a result of repeated movement, the higrade bands appear to have been rearranged in an en echelon manner so that over the width

of the vein, the high grade lenses traverse from hangingwall to footwall. Because previous operators were concerned with maintaining a high shipping grade and the vein structure was misunderstood, only a portion of the high grade bands were followed in drifting and stoping. Therefore neither the true width nor true nature of the mineralization was determined.

As mentioned, the silver-bearing minerals are numerous and compose a suite that in the past has been termed as possibly derived by supergene enrichment. While it remains possible that the silver mineralogy is supergene enriched, the vein composition and more importantly the silver content is entirely consistent from the highest to lowest vein exposures. There is no recognizable return to any primary, non-enriched vein material in a 425 meter vertical section of the 'D' vein. Therefore, if enrichment has played a key role, its development pre-dates the last glacial periods and its vertical limits are unknown.

1981 UNDERGROUND EXPLORATION

On June 22, 1981 a Bell 205 helicopter airlifted 15 tonnes of equipment to the 301 production level at 1550 meters on the Sunday claim (lot 4731). Two portable, pre-fabricated insulated buildings of 16 x 16 feet each were erected near the portal and housed 4 men for a 3½ month period. Supplies were airlifted to the camp at irregular intervals from Stewart, through short wave radio contact.

A water supply to the camp was maintained from underground and a 9 KW generating plant provided light, heat and hot water. Two compressors provided air for percussion drilling and to run an Eimco mucking machine. Corroded mine tracks were replaced underground so that existing mine cars could be hand trammed to the waste dump.

Guhr Construction Ltd. of Delta, B.C. provided necessary equipment and trained miners on a contract basis. The mining crew were under the capable supervision of Karl Bauer, shiftboss.

In rehabilitating the 301 access crosscut approximately 570 meters, some 800 tons of muck was moved, unsafe mine timbers were replaced and raise ladders and slides rehabilitated where possible or entirely replaced. Most mine timbering, particularly in raises is in remarkable shape. This has been attributed to wet, well-ventilated conditions. Where timbers are rotted, the conditions are dry and less ventilated.

Access was gained to part of the Blind vein workings and to most of the 305 South drift on the Prosperity vein for mapping and percussion drilling purposes. See Map 3 in pocket for reference.

As mentioned previously, geological mapping indicated that the veins were much wider in some sections than had been recognized by prior operators. Where this was determined, a program of short percussion drill holes was laid out to test both the hangingwall and footwall of the vein to determine through sludge assay, the potential economic limits. One month was expended in drilling time. Two short jack-leg drills were used in the program that had the capability of drilling a maximum 15 meter hole of approximately 5 cm diameter.

The hole locations were marked at approximate 15 meter intervals or where available between drift timbering over the full 114 meters of the 305 S. drift exposed. It was the intention of the program to drill perpendicular to the drift but due to its narrowness (average 1.8 meters wide) most of the holes had to be rotated in the horizontal plane to accommodate the jack leg. The average vertical inclination of the holes was plus 15° to expedite sludge

and water return. The holes varied in length from 4.8 meters to 12 meters for a total of 147 meters of percussion drilling. Caving problems prevented some drill holes from reaching their planned lengths.

As the starter steels for the holes is 2 feet (0.6m), and the remainder are in 4 foot (1.2m) lengths, sampling was confined to those intervals for convenience. An aluminum trough placed below the hole and emptying into a plastic bucket provided the sludge collection mechanism. At the end of each sample interval (either .6 or 1.2 meters) the entire content of the bucket was transferred to a plastic sample bag and allowed to settle. The water was then decanted, the bag labelled, and samples sent to Chemex Laboratories to assay for silver, lead and zinc.

ASSAY PROCEDURE:

All samples were submitted to Chemex Laboratories who conducted standard fire assays for silver content. It is apparent that some native silver may have a 'nugget' effect on silver assays as some random checks on samples had reproducibilities of between 88% and 112% of the value of the original assay. Since standard checks should be about $\pm 5\%$ difference to the original, a procedure to check the sample screen for metallics will be undertaken in future. In this procedure, any metallic fraction left on the screens is assayed separately and calculated into the results obtained from the sample pulp.

For assay of lead and zinc, a 2 gram sub-sample from the original prepared sample is digested in a hot perchloric-nitric acid mixture for 2 hours, cooled, then transferred into a 250 ml. volumetric flask. Nitric acid is added to both the final sample and standard solutions. The solutions are then analyzed by atomic absorption spectroscopy.

RESULTS

The drilling results substantiated the prior mapping and vein structure conclusions. Excellent silver values over good widths encountered in the drilling program indicates the previous operators had difficulty following a stranded, en echelon arrangement of high grade bands within the vein shear zones and did not recognize its nature.

A summary of the results shows an indicated 4.7 meter true vein width over the 114 meter interval tested with an average silver content of 31.6 ounces per ton. Drill hole locations and assay intersections are presented on Map 4 (in pocket). With these results the drill program proved up a tonnage potential of approximately 490 tons per vertical foot or 1500 tonnes per vertical meter for the section of the Prosperity vein tested. Lead and zinc content are minor in comparison and approximate 4.5% combined over the same interval. Only a few gold assays have been performed as old sampling data indicates gold to average in the 0.01 to 0.02 ounces per ton range. The individual drill hole assays for Ag, Pb and Zn are appended to this report.

SUMMARY AND RECOMMENDATIONS

The 1981 program of underground exploration at the Prosperity-Porter Idaho minesite near Stewart concentrated on gaining access to and then percussion drill testing a portion of the Prosperity vein. This vein contributed the bulk of ore shipments made during the short production period at the mine between 1929 and 1931.

A re-interpretation of the vein geology and structure had suggested that rather than narrow and high grade, the vein was a much wider, stranded shear zone. Subsequent mapping confirmed this theory and

a drill program to test vein width and silver content was carried out. 114 meters of vein was drilled in the 305 S. drift with holes a maximum of 12 meters in length. This section of the vein proved to be an average 4.7 meters wide with a silver content of 31.6 ounces per ton with approximately 4.5% combined lead and zinc.

As the results are very encouraging, it is recommended that further access be gained to the north on the 305 N. drift to geologically map the continuation of the vein for a similar program to that carried out in 1981. In addition it is recommended that the 301 crosscut be extended up to 100 meters beyond the Prosperity vein intersection to establish diamond drill stations to explore the downward extension of the ore shoot indicated in the 305 S. drift. It is also noted that diamond drilling of the ore shoot on the 'D' vein will be carried out concurrently as per previous recommendations resulting from the successful 1980 program on that level.

Respectfully Submitted



REFERENCES

- Bacon, W.R. and Tompson, W.D., 1973. Report on The Mines on Mt. Rainey Stewart Area, British Columbia. Private company report.
- Clarke, W.E., 1980. Appraisal of the Data and Proposed Exploration/ Development Program, Prosperity-Porter Idaho Group Near Stewart, B.C. Private company report.
- 1981. Pacific Cassiar Limited Porter-Idaho Property Summary Report 1980 Operations, Proposed Exploration Program. Private company report.
- Grove, E.W., 1971. Geology and Mineral Deposits of the Stewart Area British Columbia. B.C. Department of Mines and Petroleum Resources, Bull. 58.
- Kidd, D.F., 1948. Report on the Property of "Big Four" Silver Mines, Portland Canal District, British Columbia. Private company report.
- McDougall, B.W.W., 1950. The Big Four Silver Mine, Marmot River Area, Portland Canal Mining Division British Columbia. Private company report.
- Seraphim, R.H., 1975. Report on Silverado-Prosperity-Porter Idaho, Stewart British Columbia. Private company report.
- Sharp, W.M., 1964. Tunnel and Plant Inspection and Recommended Exploration - Development. Private company report.
- Skerl, A.C., 1961. The Prosperity-Idaho-Silverado Property, Cassiar Consolidated Mines. Private company report.

----- 1966. Cassiar Consolidated Mines Prosperity-Idaho
Property. Private company report.

Stevenson, W.G., 1974. Geological Report on the Prosperity, Porter
Idaho and Silverado Mines, Skeena Mining Division British
Columbia. Private company report.

CERTIFICATE

I, John Michael Kenyon certify that:

1. I am a graduate of the University of Alberta with degrees in Geology. (B.Sc. 1974, M.Sc. 1978)
2. I am a Professional Geologist, registered with the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
3. I am a member of the Canadian Institute of Mining and Metallurgy and a Fellow of the Geological Association of Canada.
4. I have been practising my profession for the past 4 years.
5. This report is based on field work and examination carried out during the period June 22 to October 8, 1981.
6. I am a geologist for and a director and officer of Pacific Cassiar Limited and thereby hold an interest in the properties and securities of Pacific Cassiar Limited.

Richmond, B.C.
January, 1982



STATEMENT OF COSTS

PERSONNEL EXPENSE

Mining Crew

K. Bauer - shift boss	- June 20 to October 8, 1981 incl.	
	- 82 days @ \$350/day	- \$ 28,700
J. Berezowski - miner	- June 20 to September 1, 1981 incl.	
	- 74 days @ \$250/day	- 18,500
L. Bauer - labourer	- June 20 to October 8, 1981 incl.	
	- 82 days @ \$100/day	- 8,200
C. Wilson - labourer	- June 20 to September 1, 1981 incl.	
	- 74 days @ \$100/day	- 7,400
B. Hart - labourer	- September 1 to October 8, 1981 incl.	
	- 39 days @ \$100/day	- 3,900
		<u>\$ 66,700</u>

Geological

J.M. Kenyon - P. Geol.

June 22 to June 27, 1981

July 25 to July 31, 1981

August 18 to August 21, 1981

September 9 to September 14, 1981

October 1 to October 8, 1981

31 days at \$150/day - \$ 4,650

J.A. Greig - P. Geol.

September 9 to September 14, 1981

6 days at \$150/day - 900

Walter E. Clarke, P. Eng.

August 18 to August 21, 1981

4 days at \$350/day - 1,400

\$ 6,950

TOTAL - \$ 73,650

Equipment Rental

170 c.f.m. compressor - \$825/mo x 3.5 months -	\$ 2,887.50
125 c.f.m. compressor - \$560/mo x 3.5 months -	1,960.00
9 K.W. power plant - \$729/mo x 3.5 months -	2,551.50
12,000 B.T.U. heater - \$115/mo x 3.5 months -	402.50
4 x 4 truck - \$500/mo x 3.5 months -	<u>1,750.00</u>
	\$ 9,551.50

Food & Accomodation

392 man days at \$50/man day (June 20 - October 8, 1981)	\$ 19,600
--	-----------

Miscellaneous

Assays - 145 samples assayed for Ag, Pb, Zn at \$20.50 ea.	\$ 2,972.50
Expediting services - \$500/mo x 3 months	1,500.00
Mine timbers and ladders	2,247.00
Mobilization and demobilization (15 tonnes by helicopter from Stewart)	15,100.00
Report preparation	<u>430.00</u>
	\$ 22,249.50
TOTAL -	51,401.00

TOTAL APPLICABLE COSTS - \$125,051.00

\$ 9922.00 appertained to GEOL

Appendix I

PACIFIC CASSIAR LIMITED CLAIM HOLDINGS - MT. RAINY

Reverted Crown Grant

	<u>Lot No.</u>	<u>Record No.</u>
Warden	5121	3215

Staked Claims

<u>Name</u>	<u>Record No.</u>
Ryan	2820
Canal 4 Fr.	2824
Canal 5 Fr.	2825
Canal 6 Fr.	2826

PACIFIC CASSIAR LIMITED CLAIM HOLDINGS - MT. RAINY

CROWN GRANT

<u>Name</u>	<u>lot no.</u>	<u>Name</u>	<u>lot no.</u>
Red Reef 2	1406	Never Sweat Fr.	4738
Red Reef 3	1407	Triumph	4739
Tea Pot Dome	1857	Victoria	4740
Prosperity	1858	Silver Key Fr.	5103
Prosperity Fr.	1859	Silver Key 1	5104
Honest John	1860	P.G. 1 Fr.	5105
Copper King	1864	P.G. 2 Fr.	5106
Copper Queen	1865	Key Fr.	5113
Gargoyle Fr.	1866	Silver Key 3	5114
Iron Hill	4508	Silver Key 4	5115
Glenearn	4510	Silver Key 5	5116
Fortune	4512	Silver Key 6	5117
Silver Bow 3 Fr.	4514	Silver Key 7	5118
Glacier Fr.	4515	Cambria	5119
Silver Bow 1	4518	Guard	5120
Silverado 3	4520	Silver Key 2	5122
Silverado 4	4521		
Silverado 4 Fr.	4523		
Canyon	4524		
Melvin 3 Fr.	4727		
Slide	4728		
Lucille	4729		
Nettie L.	4730		
Sunday	4731		
Eureka	4732		
Never Sweat	4733		
Prickly Heat	4734		
Gem of the Mts.	4735		
Gem of the Mts. Fr.	4736		
Prickly Heat Fr.	4737		



CHEMEX LABS LTD.

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 NORTH VANCOUVER, B.C.
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 TELEPHONE: (604)984-0221
 TELEX: 043-52597

Appendix II

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO : PACIFIC CASSIAR LTD.
 166-10551 SHELLBRIDGE WAY
 RICHMOND, B.C.
 V6X 2W9

CERT. # : A8114180-001-A
 INVOICE # : 18114180
 DATE : 19-OCT-81
 P.O. # : NONE

Prosperity 305 S

Sample description	Prep code	Pb %	Zn %	Ag FA oz/T		Fr.		
53101	207	14.70	1.34	144.98	THB	--0-2	--	--
53102	207	1.25	0.50	13.13		--2-4	--	--
53103	207	0.15	0.29	1.36		--4-8	--	40oz 8'
53104	207	0.10	0.64	0.96		--8-12	--	--
53105	207	0.05	0.23	0.60		--12-16	--	--
53106	207	0.07	0.35	0.83	TH7	--16-20	--	--
53107	207	15.90	1.77	210.24		--0-2	--	54oz 8'
53108	207	0.33	0.18	3.94		--2-4	--	--
53109	207	0.16	0.18	1.92		--4-8	--	--
53110	207	0.06	0.19	0.70		--8-12	--	--
53111	207	0.29	0.50	0.30	TH6	--12-16	--	--
53112	207	12.80	0.92	132.82		--0-2	--	--
53113	207	4.34	0.46	45.02		--2-4	--	--
53114	207	9.18	0.89	93.03		--4-8	--	--
53115	207	0.69	0.18	7.50		--8-12	--	34oz 30'
53116	207	1.20	0.18	10.86	TH5	--12-16	--	--
53117	207	2.37	0.28	24.78		--16-20	--	--
53118	207	2.31	0.40	21.48		--20-24	--	--
53119	207	0.49	0.09	4.28		--24-28	--	--
53120	207	0.86	0.10	8.04		--28-30	--	--
53121	207	27.10	1.30	244.85	TH5	--0-2	--	--
53122	207	6.59	1.15	54.05		--2-4	--	87.4oz 16'
53123	207	2.14	1.84	20.62		--4-8	--	--
53124	207	2.14	1.08	16.35		--8-12	--	--
53125	207	16.20	1.30	163.08		--12-16	--	--

R. Swate

Registered Assayer, Province of British Columbia





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 CANADA V7J 2C1
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 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO : PACIFIC CASSIAR LTD.
 165-10551 SHELLBRIDGE WAY
 RICHMOND, B.C.
 V6X 2W9

CERT. # : A8114530-001-A
 INVOICE # : I8114530
 DATE : 31-OCT-81
 P.O. # : NONE

Prosperity Vein 305S Drift

Sample description	Prep code	Pb %	Zn %	Ag FA oz/T	Fl.		
53025	207	0.06	0.31	0.30	TH2	12-10	--
53126	207	4.10	1.04	22.18	TH2	0-2'	--
53127	207	0.50	0.29	2.94		2-4'	--
53128	207	0.31	0.27	1.88		4-8'	12.56g
53129	207	0.19	0.14	0.66		8-12'	4'
53130	207	0.08	0.07	0.38		12-16'	--
53131	207	0.09	0.07	0.35	TH3	16-20'	--
53132	207	0.11	0.08	0.38		20-24'	--
53133	207	0.06	0.05	0.18		28'	--
53134	207	0.10	0.07	0.34		32'	--
53135	207	0.11	0.13	0.42		36'	--
53136	207	0.03	0.03	0.07	TH4	40'	--
53137	207	10.10	0.82	30.70		0-2'	--
53138	207	3.20	0.50	9.70		2-4'	--
53139	207	0.24	0.33	1.06		4-8'	20.2g
53140	207	0.17	0.27	0.70		8-12'	4'
53141	207	0.04	0.07	0.32	TH2	16'	--
53142	207	0.12	0.23	0.72		20'	--
53143	207	0.17	0.19	0.54		24'	--
53144	207	21.50	1.59	169.80		2'	--
53145	207	6.64	0.62	48.86		4'	--
53146	207	0.26	0.20	26.00	TH2	8'	67.6g
53147	207	0.18	0.15	1.36		12'	8'
53148	207	0.16	0.18	1.54		16'	--
53149	207	0.23	0.20	2.15		20'	--
53150	207	0.24	0.20	0.90	TH1	2'	--
53151	207	0.26	0.17	0.72		4'	--
53152	207	0.93	0.70	5.04		8'	--
53153	207	0.53	0.58	3.40		12'	--
53154	207	0.15	0.19	0.70		16'	--
53155	207	0.10	0.15	0.40	TH9	20'	--
53156	207	0.08	0.07	0.30		24'	--
53157	207	0.08	0.07	0.28		28'	--
53158	207	13.80	1.34	86.66		2'	--
53159	207	20.80	0.92	144.52		4'	--
53160	207	12.10	0.60	103.34	TH9	8'	--
53161	207	0.23	0.14	1.54		12'	109.4g
53162	207	0.08	0.15	0.38		16'	8'
53163	207	0.02	0.03	0.10		20'	--
53164	207	0.02	0.03	0.06		24'	--

B. Swaites

Registered Assayer, Province of British Columbia



MEMBER
 CANADIAN TESTING
 ASSOCIATION



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 CANADA V7J 2C1
 TELEPHONE: (604)984-0221
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CERTIFICATE OF ASSAY

TO : PACIFIC CASSIAR LTD.
 166-10551 SHELLBRIDGE WAY
 RICHMOND, B.C.
 V6X 2W9

CERT. # : A8114530-002-A
 INVOICE # : I5114530
 DATE : 31-OCT-81
 P.O. # : NONE

Prosperity Vein 305S.

Sample description	Prep code	Pb %	Zn %	Ag FA oz/T	Et.		
53165	207	0.03	0.03	0.07	TH9	--28'	--
53166	207	0.02	0.03	0.08	TH9	--32'	--
53167	207	0.03	0.05	0.13	TH9	--36'	--
53168	207	0.02	0.06	0.10	TH9	--40'	--
53169	207	10.90	0.82	67.24	TH9	--2'	--
53170	207	0.35	0.41	2.96	TH10	--4'	--
53171	207	0.22	0.41	1.70	TH10	--8'	--
53172	207	0.31	0.38	2.76	TH10	--12'	-- 35.1g 4'
53173	207	0.22	0.20	2.46	TH10	--16'	--
53174	207	0.16	0.17	1.54	TH10	--20'	--
53175	207	0.14	0.16	1.46	TH10	--24'	--
53176	207	0.15	0.17	1.98	TH10	--28'	--
53177	207	0.16	0.68	5.04	TH10	--32'	--
53178	207	0.89	2.39	10.30	TH10	--36'	--
53179	207	0.78	2.06	9.26	TH10	--40'	--
53180	207	0.54	0.90	5.04	TH11	--12'	--
53181	207	0.50	1.34	5.82	TH11	--16'	-- 9.7g 8'
53182	207	0.30	1.06	3.10	TH11	--20'	-- 1.6g 16'
53183	207	0.16	1.15	2.24	TH11	--24'	--
53184	207	0.13	0.82	2.24	TH11	--28'	--
53185	207	0.16	0.98	2.04	TH11	--32'	--
53186	207	0.14	0.39	1.56	TH11	--36'	--
53187	207	0.23	0.32	2.48	TH11	--40'	--
53188	207	3.86	0.58	37.58	TH11	--2'	--
53189	207	2.06	1.24	70.00	TH11	--4'	-- 31.9g 8'
53190	207	1.54	0.44	10.02	TH12	--8'	--
53191	207	0.14	0.10	0.72	TH12	--12'	--
53192	207	0.02	0.09	0.06	TH12	--16'	--
53193	207	0.02	0.10	0.16	TH12	--20'	--
53194	207	0.01	0.06	0.18	TH12	--24'	--
53195	207	0.29	0.29	1.84	TH12	--28'	--
53196	207	1.87	0.22	11.18	TH12	--30'	--
53197	207	0.98	1.18	6.22	TH12	--4'	--
53198	207	0.53	0.62	4.70	TH12	--8'	--
53199	207	0.63	0.68	4.56	TH12	--12'	-- 4.87g 16'
53200	207	0.52	0.58	4.02	TH13	--16'	--
53201	207	0.17	0.17	1.02	TH13	--20'	--
53202	207	0.02	0.06	0.12	TH13	--24'	--
53203	207	0.05	0.09	0.32	TH13	--28'	--
53204	207	0.03	0.14	0.16	TH13	--32'	--

B. Swales

.....
 Registered Assayer, Province of British Columbia



4.9 Ave



CHEMEX LABS LTD.

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CERTIFICATE OF ASSAY

TO : PACIFIC CASSIAR LTD.
166-10551 SHELLBRIDGE WAY
RICHMOND, B.C.
V6X 2W9

CERT. # : A8114531-001-A
INVOICE # : I8114531
DATE : 04-NOV-81
P.O. # : NONE

Prosperity 3055

Sample description	Prep code	Pb %	Zn %	Ag FA oz/T	Ft.		
53205	207	0.47	0.43	3.04	TH13	--36'	--
53206	207	1.82	1.01	17.88	}	--2'	--
53207	207	6.33	1.37	36.50		--4'	--
53208	207	0.47	0.10	1.94		--8'	--
53209	207	0.33	0.10	1.38		--12'	--
53210	207	0.37	0.07	1.86		TH14	--16'
53211	207	0.03	0.02	0.12	--20'	--	-- $\frac{4'}{4'}$
53212	207	0.08	0.03	0.28	--24'	--	-- $\frac{14.5g}{8'}$
53213	207	0.64	0.10	2.80	--28'	--	--
53214	207	0.01	0.01	0.06	--30'	--	--
NO TAG ?	207	0.27	0.33	1.62	--	--	--

B. Stewart
.....
Registered Assayer, Province of British Columbia





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CERTIFICATE OF ASSAY

TO : PACIFIC CASSIAR LTD.
 166-10551 SHELLBRIDGE WAY
 RICHMOND, B.C.
 V6X 2W9

CERT. # : A8114698-001-A
 INVOICE # : 18114698
 DATE : 06-NCV-81
 P.C. # : NONE

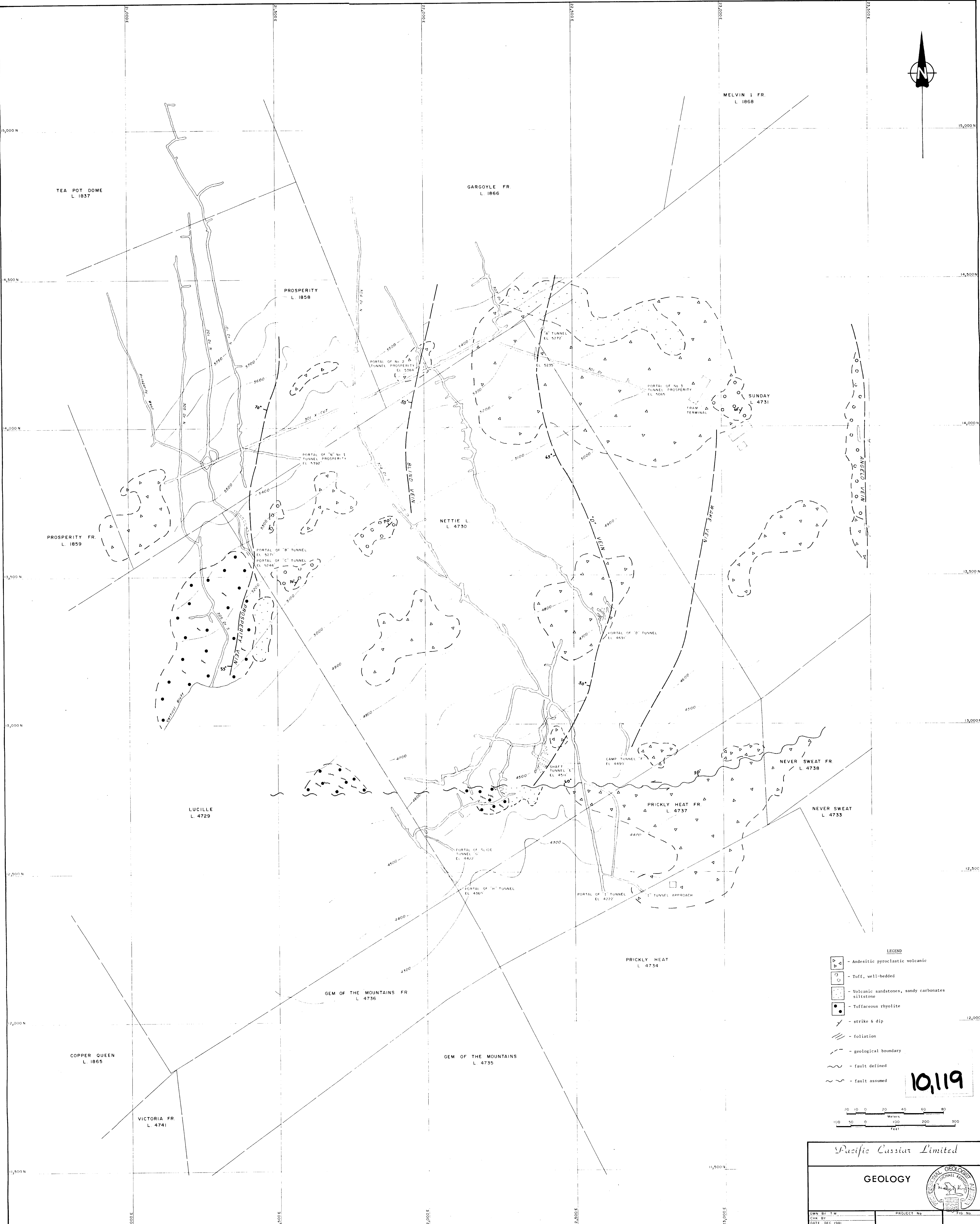
Prosperity Vein 3055 Drift

Sample description	Prep code	Cu %	Pb %	Zn %	Ag FA oz/T	Au FA oz/t Ft	
53215	207	--	0.10	0.23	0.70	--4'	--
53216	207	--	0.09	0.19	0.70	--8'	--
53217	207	--	0.03	0.06	2.64	--12'	--
53218	207	--	0.02	0.03	0.06	--16'	--
53219	207	--	0.03	0.04	0.24	--20'	--
53220	207	--	0.14	0.40	2.48	--24'	--
53221	207	--	4.28	0.77	25.50	--28'	--
53222	207	--	0.17	0.22	1.48	--30'	--
53223	207	--	0.80	1.08	15.56	--2'	--
53224	207	--	1.22	0.37	13.16	--4'	--12.8%
53225	207	--	0.61	0.41	11.20	--8'	--8'
53226	207	--	0.02	0.02	0.16	--12'	--
53227	207	--	0.02	0.06	0.14	--14'	--
53228	207	--	0.02	0.02	0.14	--20'	--
53229	207	--	<0.01	0.02	0.04	--24'	--
53230	207	--	0.02	0.02	0.10	--28'	--
53231	207	--	0.01	0.02	0.08	--30'	--
53232	207	--	0.11	0.19	0.60	--2'	--
53233	207	--	0.09	0.15	0.46	--4'	--
53234	207	--	0.02	0.03	0.06	--8'	--
53235	207	--	<0.01	0.01	0.04	--12'	--
53236	207	--	<0.01	0.01	0.02	--14'	--
53237	207	--	0.01	0.01	0.04	--20'	--
53238	207	--	0.01	0.01	0.04	--20'	--

J. Swate

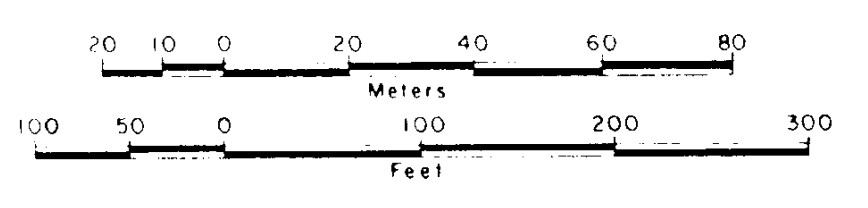
.....
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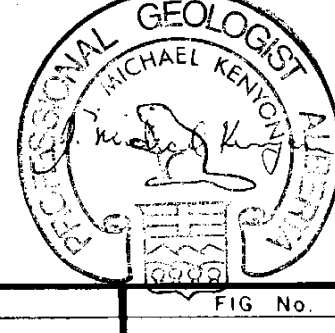
- LEGEND**
- Andesitic pyroclastic volcanic
 - Tuff, well-bedded
 - Volcanic sandstones, sandy carbonates siltstone
 - Tuffaceous rhyolite
 - strike & dip
 - foliation
 - geological boundary
 - fault defined
 - fault assumed

10,119

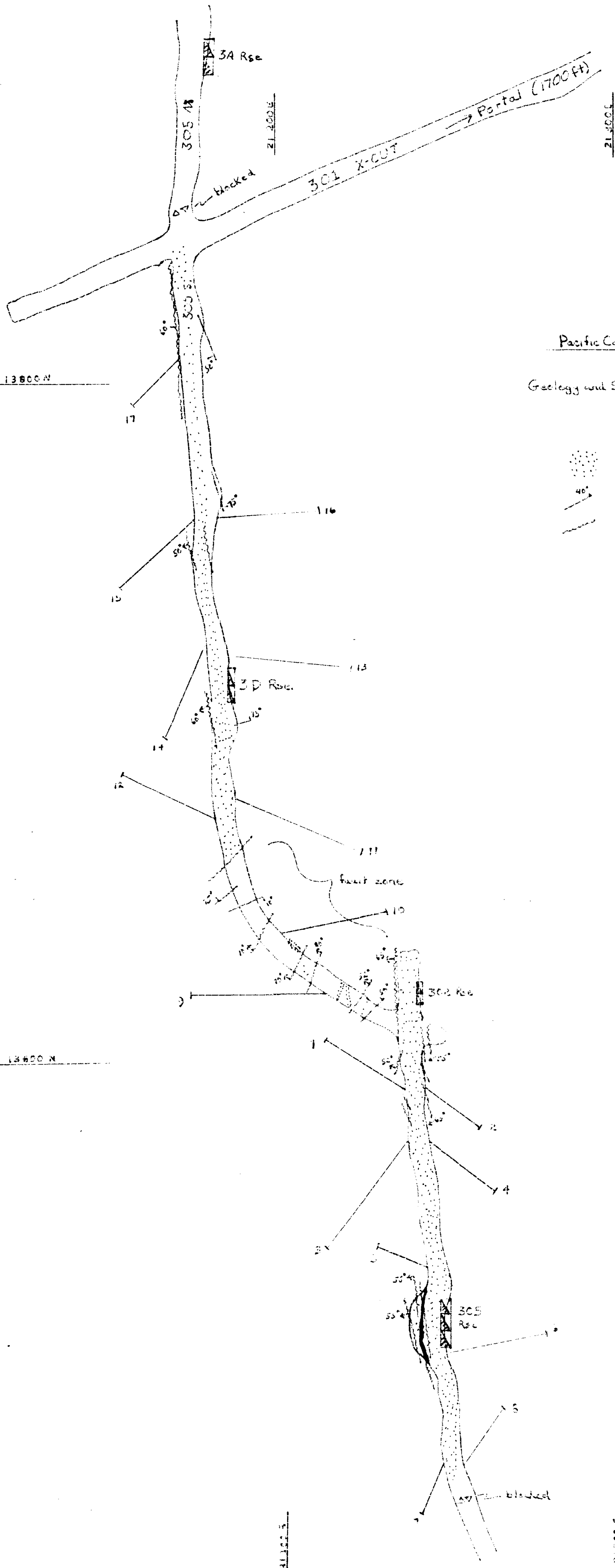


Pacific Cassiar Limited

GEOLOGY



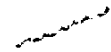


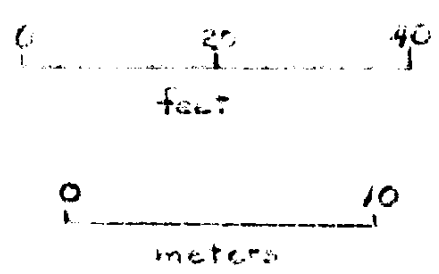
OWN BY T.M. PROJECT No. _____ FIG. No. _____
 CHK BY _____
 DATE DEC 1981



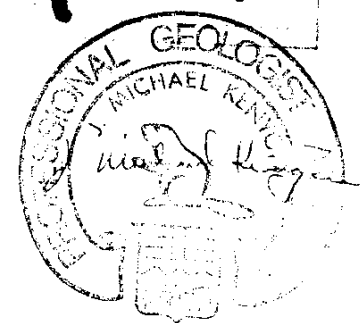
Pacific Casstar Limited

Geology and Structure - Prosperity Vein

-  Vein
-  Seis
-  Fracture



10,119



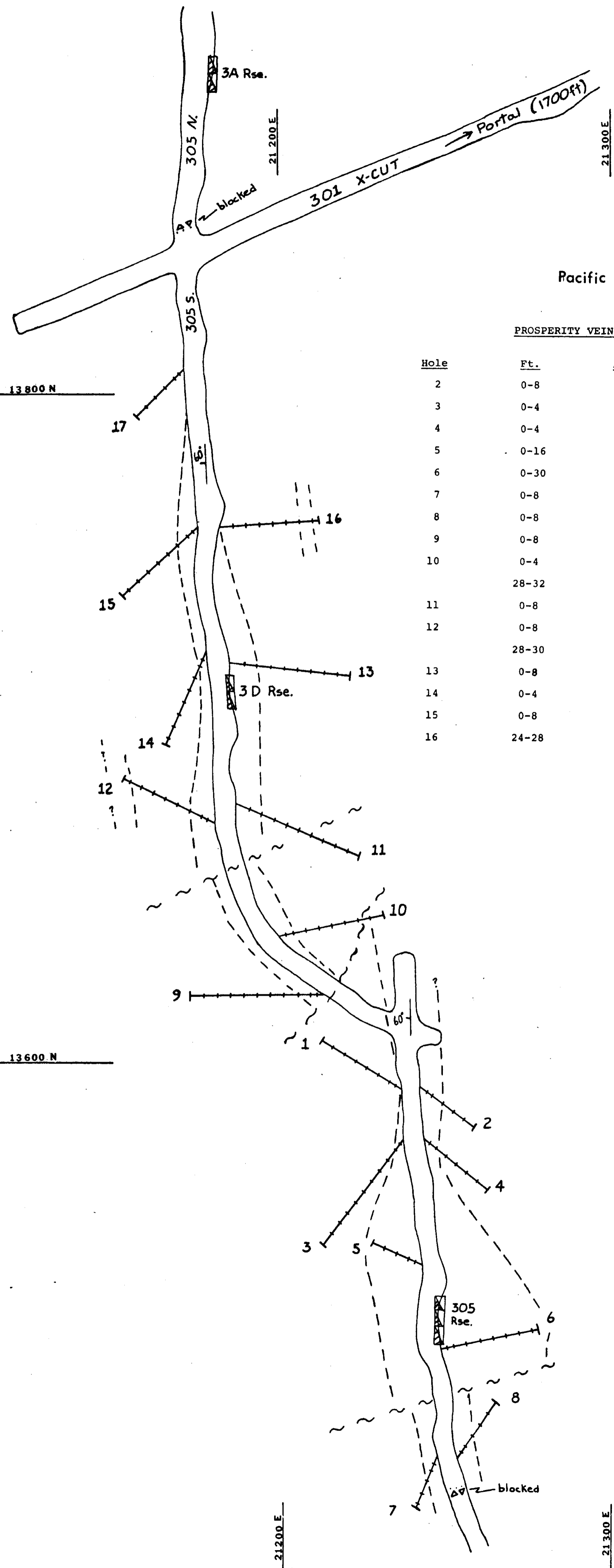
Dec. 1981
 after Clarke, W. E. 2 Eng.

10,119

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PROSPERITY VEIN PERCUSSION DRILL RESULTS

Hole	Ft.	Ag(oz/ton)	Pb%	Zn%
2	0-8	67.6	7.16	.60
3	0-4	12.5	2.30	.66
4	0-4	20.2	6.65	.66
5	0-16	87.4	9.33	1.36
6	0-30	33.9	3.36	.36
7	0-8	54.5	4.13	.57
8	0-8	40.2	4.06	.60
9	0-8	109.4	14.70	.86
10	0-4	35.1	5.62	.61
	28-32	5.0	.16	.68
11	0-8	9.7	.73	1.78
12	0-8	31.9	2.25	.67
	28-30	11.2	1.87	.22
13	0-8	5.4	.66	.76
14	0-4	27.2	4.07	1.19
15	0-8	12.8	.81	.66
16	24-28	25.5	4.28	.77



~ ~ ~ assumed fault
 - - - probable vein boundary

