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PROSPECTUS
May 18, 1984.
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SUMMARY REPORT ON THE
VAL-VERA PROPERTY
KATHLEEN LAKES, YUKON TERRITORY
FOR
PRISM RESOURCES LTD.

December 19, 1983

W.G. Timmins Exploration
& Development Ltd.

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SUMMARY AND CONCLUSIONS

Prism Resources Ltd. owns a 37.5% interest in the Val-Vera property, Kathleen Lakes area, Y.T. Fifteen silver-lead-zinc occurrences are known on the property, seven of which have been tested by diamond drilling since 1978. Two undrilled showings, the South Rusty Mountain and Quartzite showings, appear to have potential. These and the most significant previously explored deposit, termed the Vera Main Zone, warrant diamond drilling.

The Vera Main Zone has received exploration work in the form of geological mapping, soil geochemistry, test geophysics, bulldozer trenching, surface and underground diamond drilling, underground drifting and crosscutting and metallurgical studies since discovery in 1978. This work has partially defined a vein-fault structure mineralized with sphalerite, galena, tetrahedrite, and pyrite with a strike length of over 2,150 feet and a dip length of over 500 feet.

The vein-fault structure contains drill-indicated reserves of over 500,000 tons grading approximately 7.5 ounces/ton silver, over an average width of 19.35 feet. Underground exploration indicates that a reduced tonnage, on the order

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of 250,000 to 300,000 tons, may be available at a grade of 15 ounces/ton silver at a reduced width of 9.8 feet. A determination of proven tonnage awaits further diamond drilling and a thorough underground development programme.

The Vera Main zone is open at depth in the central section of the structure over a strike length of approximately 1000 feet. The presence of low grade soil anomalies and an occurrence of high grade float along strike to the west of the presently drilled limits of the West Zone suggest that the structure is also open in this direction.

High grade tetrahedrite and galena-tetrahedrite mineralization exposed by trenching in the South Rusty Mountain and Quartzite showings warrant initial testing by diamond drilling. Both of these showings have been explored by mapping and soil sampling in previous years and they appear to have some size potential.

A diamond drilling programme of approximately 20,000 feet in 30 or more holes is recommended for the Vera Main Zone and the South Rusty Mountain and Quartzite showings. The programme is designed to expand the known strike and depth dimensions of the Vera Main Zone and to initially test

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the South Rusty Mountain and Quartzite showings. The estimated cost is \$899,875, of which Prism Resources Ltd. will contribute \$262,466.54 through its working interest position of 29.167%.

December 19, 1983

VERA (Main Zone) 0.85 million t of 1.81% Pb,
1.89% Zn,
307 g/t Ag.

Metric conversion of drill indicated
and possible reserves from
pages 29 and 30 of this report.

INTRODUCTION

Prism Resources Ltd., as a partner in the Yukon Joint Venture (1977) Ltd., has a 37.5% interest in the Val-Vera property, near Kathleen Lakes, Y.T.

The writer was requested by Mr. J. Brady and Mr. R. Forshaw, of Prism Resources Ltd., to prepare an updated summary report on the property and to make recommendations for further work.

The writer, as a former employee of Prism Resources Ltd., spent the field seasons of 1978-1982 as a supervisor of the development work on the Val-Vera and other Prism Joint Venture properties in the area. During this period the writer also conducted regional exploration work in the district and has personal familiarity with the deposits on Keno and Galena Hills, the deposits in the Bonnet Plume area, and those in the Rackla River district.

PROPERTY

Prism Resources Limited holds a 37.5% interest (8.33% carried, 29.167% working) in the Val-Vera property east of Kathleen Lakes, Y.T., in the Mayo Mining District. A

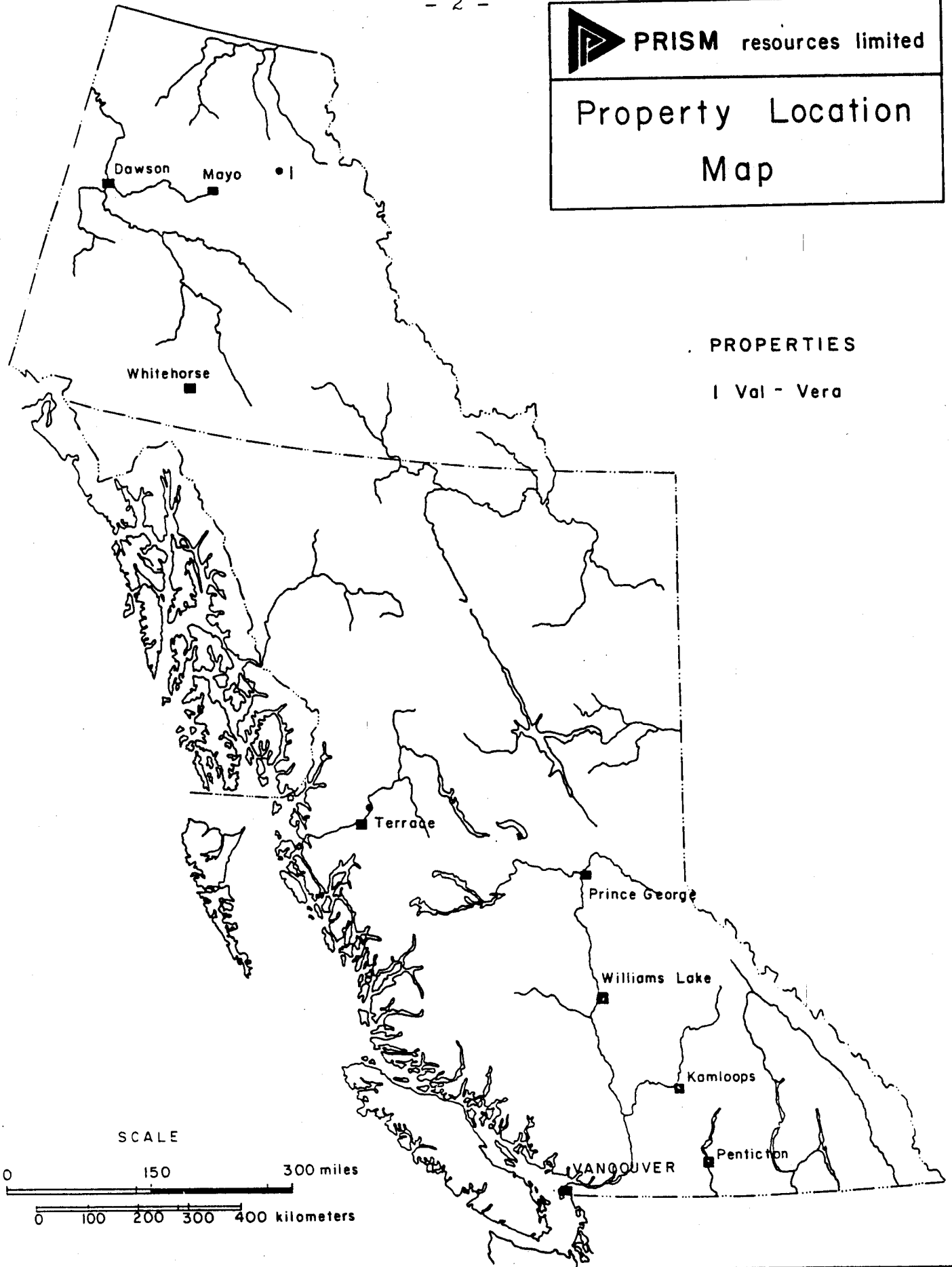


PRISM resources limited

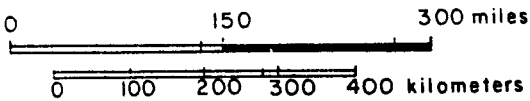
Property Location Map

PROPERTIES

I Val - Vera



SCALE



list of the claims and their record numbers and expiry dates follows:

<u>Claim Name</u>	<u>Record No.</u>	<u>Expiry Date</u>
VERA 1 - 164	YA 37382-37545	January 15, 1993
VAL 1 - 4	YA 30884-30887	January 19, 1993
VAL 5 - 18	YA 30888-30901	January 19, 1994
VAL 19	YA 30902	January 19, 1993
VAL 20	YA 30903	January 19, 1994
VAL 21	YA 30904	January 19, 1993
VAL 22 - 54	YA 30905-30937	January 19, 1994
VAL 55 - 56	YA 37128-37129	January 19, 1994
VAL 57 - 82	YA 37130-37155	January 19, 1993
VAL 83 - 144	YA 37146-37207	January 19, 1994
VAL 145 - 150	YA 37208-37213	January 19, 1990
VAL 151 - 162	YA 37214-37225	January 19, 1986
VAL 163 - 180	YA 37226-37243	January 19, 1994
VAL 181 - 186	YA 37244-37249	January 19, 1990
VAL 187 - 189	YA 37260-37262	January 19, 1986
VAL 190 - 204	YA 37263-37277	January 19, 1985
VAL 205 - 222	YA 37278-37295	January 19, 1994
VAL 223 - 224	YA 37296-37297	January 19, 1990
VAL 225 - 228	YA 37298-37201	January 19, 1989
VAL 229 - 246	YA 37302-37219	January 19, 1985
VAL 247, 249, 251	YA 37320-37322, 37324	January 19, 1994

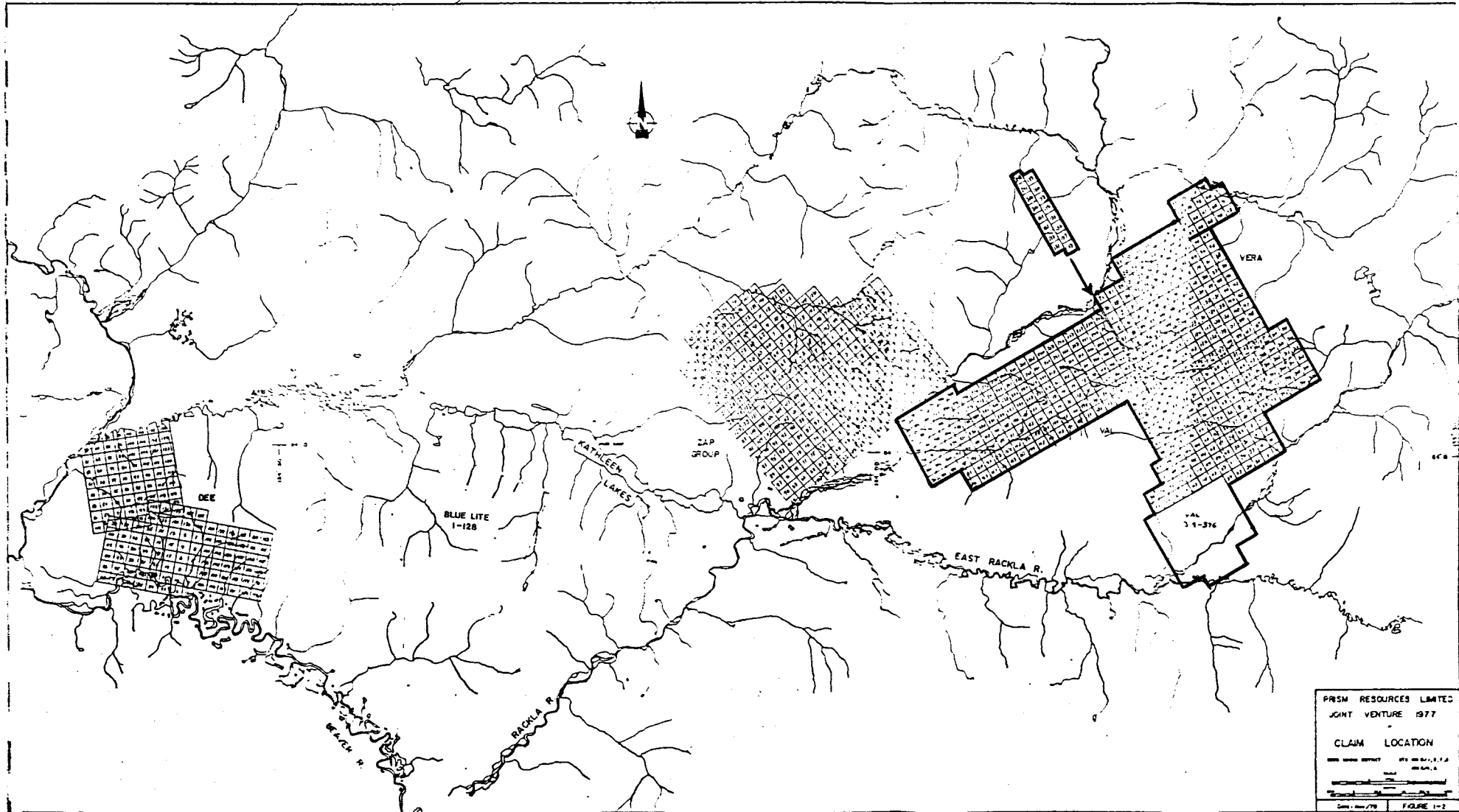
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<u>Claim Name</u>	<u>Record No.</u>	<u>Expiry Date</u>
VAL 248, 250, 252	YA 37321, 37323, 37325	January 19, 1990
VAL 253, 255, 257	YA 37326, 37328, 37330	January 19, 1994
VAL 254, 256, 258	YA 37327, 37329, 37331	January 19, 1990
VAL 259, 261, 263	YA 37332, 37334, 37336	January 19, 1994
VAL 260, 262	YA 37333, 37335	January 19, 1990
VAL 264 - 266	YA 37337-37339	January 19, 1990
VAL 267 - 270	YA 37340-37343	January 19, 1989
VAL 271 - 294	YA 37344-37367	January 19, 1985
VAL 295 - 298	YA 37954-37957	January 19, 1994
VAL 299 - 318	YA 37958-37977	January 19, 1993
VAL 319 - 328	YA 40125-40134	December 26, 1989
VAL 329 - 330	YA 40135-40136	December 26, 1985
VAL 331 - 343	YA 40137-40139	December 26, 1989
VAL 344 - 350	YA 40140-40146	December 26, 1985
VAL 351 - 352	YA 40147-40148	December 26, 1989
VAL 353	YA 40149	December 26, 1985
VAL 354 - 356	YA 40150-40152	December 26, 1989
VAL 357 - 362	YA 40513-40518	December 26, 1989
VAL 363 - 368	YA 40519-40524	December 26, 1985
VAL 369 - 376	YA 40894-40901	December 26, 1985

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PRISM RESOURCES LIMITED
 JOINT VENTURE 1977
 CLAIM LOCATION

SEE INDEX SHEET SEE MAPS 1, 2, 3, 4
 1000 METERS 1000 METERS

Scale: 1:50,000

FIGURE 1-2

The writer personally staked certain of the VAL claims himself and supervised the staking of the balance. The property, with the exception of certain of the VERA claims, has not been surveyed.

LOCATION AND ACCESS

The Val-Vera property is on Rusty Mountain, which lies about 80 miles northeast of Mayo, Y.T. Access is by helicopter from Mayo. Supplies can be flown by fixed wing aircraft into Kathleen Lakes, about 12 miles west of the property, or to the Rackla River airstrip, 15 miles to the southeast, and ferried by helicopter from these points.

TOPOGRAPHY AND VEGETATION

The property lies near the physiographic boundary between the Wernecke Mountains and the Stewart Plateau. Local relief is on the order of 3000 feet, but the slopes are fairly moderate. Scarps and talus are common in certain of the mineralized areas.

Lower level vegetation consists of white and black spruce with willows along watercourses; scrub birch and willow (buckbrush) occur between treeline and 5000 feet. Alpine

grasses and low shrubs are the only vegetation above 5000 feet. Rainfall is sporadic and light in the summer months; the winters are cold and dry.

WATER, POWER, AND SUPPLIES

Water is easy to obtain in the early summer but becomes scarce at higher elevations as the season advances. Freeze-up, for practical purposes, occurs on October 1, or earlier in some years. Freezing temperatures can occur at night at any time after September 1.

Power must be supplied by portable or stationary generator.

Most supplies can be obtained in Mayo; mining supplies are available in Whitehorse, 250 miles to the south.

Mobilization of heavy equipment must be accomplished during the winter months, preferably January, February, or March. The snowpack is usually at a maximum at this time and freezing temperatures, a prerequisite for cat trains, usually prevail.

The Rackla River airstrip is suitable for DC-3 aircraft and serves as a delivery point for diamond drills, camp

equipment, fuel, timbers, and other relatively light material. Transfer from the Rackla River strip to the Rusty Mountain camp (Vera claims) can be accomplished by helicopter.

EXPLORATION AND MINING HISTORY

The area has a long and colourful mining history, beginning with placer exploration on the bars of the Stewart River in the late 1800's. Placer gold deposits were being worked on creeks draining the Keno Hill area by 1895, and a lode deposit was producing shipping-grade silver ore by 1915. The original important discovery on Keno Hill was made by Louis Beauvette in 1918 and the subsequent stampede resulted in the staking of hundreds of claims on Keno Hill, and active prospecting on surrounding hills. By 1922, over a thousand claims had been staked on Keno Hill, and several mining companies, including Keno Hill Ltd., Yukon Gold Co., Treadwell Yukon Co. Ltd., and the Onek Mining Co. Ltd. were mining and shipping ore. In 1923, silver-bearing ore was discovered on Galena Hill, southwest of Keno Hill, and another staking rush ensued.

Production of shipping-grade ore continued unabated until W.W. II, when the camp became inactive.

In 1946-1947, United Keno Hill Mines Ltd. was formed as a consolidation of the individual pre-war producers on Keno and Galena Hills. Milling commenced at this time and production has been nearly continuous since. Total production from the camp to date has been 5,602 tonnes of silver, 252,954 tonnes of lead, and 137,772 tonnes of zinc (Tempelman-Kluit, 1981).

The prospecting boom of the early 1920's resulted in the discovery of a large number of silver-lead-zinc showings, most of which lie west, north, and northeast of Keno Hill. The more important of these, including the Stand-to Hill, Rambler Hill, Mount Cameron, Silver Hill, McKay Hill, Peso and Rex, and Grey Copper Hill showings, have been explored intermittently by various companies and individuals. To date, none of these have recorded significant production.

It does not appear that the early prospectors made any serious attempt to explore the Kathleen Lakes-Rackla River area. This was presumably due to the remoteness of the area and the resulting problems with transportation and supplies.

The first claims in the area were staked in 1954 by Gordon Dickson, following a discovery of silver-lead-zinc in a

large gossan immediately north of Kathleen Lakes. This showing was explored in 1955 by Prospectors Airways Company, and has received intermittent work, including trenching and limited diamond drilling, since then.

The modern exploration boom which led to the discovery of the Val-Vera property began with the discovery, in early 1973, of spectacular zinc mineralization at Goz Creek, 35 miles northeast of the Val-Vera property on Rusty Mountain. This find precipitated a major staking and prospecting rush which by 1976 had led to discoveries of silver-lead-zinc in the Nadaleen Range, a few miles southeast of Rusty Mountain. Prism Resources Ltd. entered the area in late 1976, and had staked a large number of claims between the Rackla and Beaver Rivers by the end of the 1977 season.

Regional-scale prospecting in June, 1978 led to the discovery of the Val showings in early July. A rapid evaluation of the Rusty Mountain area by silt geochemistry ensued, and the main Vera showings were found on July 19. The two properties were consolidated by a major staking program which was completed by late July.

Development work on the Val-Vera property is summarized below on a season-by-season basis:

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- 1978: Soil geochemistry and geological mapping centered on the main showings. Ten diamond drill holes for a total length of 1,831 feet were drilled on the Val South Hill zone.
- 1979: Trenching and diamond drilling, including 27 holes (5,517 feet) on the Vera Main and Scarp zones, and 39 holes (10,369 feet) on the Val property. Discovery of the Quartzite zone.
- 1980: Diamond drilling; 42 holes on the Vera main zone and 9 holes on the Val South Hill zone for a total of 17,520 feet. Initial metallurgical and mineralogical studies, by Bacon Donaldson and Associates of Vancouver, performed on drill core samples from the Vera Main zone. Discovery of the Siltstone showing.
- 1981: Underground exploration, including 1,908 feet of drifting and crosscutting on the Vera Main zone and 11 diamond drill holes (1,788 feet). Surface diamond drilling including 10 holes (3,777 feet) on the Vera and 16 holes (5,346 feet) on the Val Siltstone showing. Initiation of detailed metallurgical studies by Bacon Donaldson and Associates, performed

on muck samples from the underground programme.
Discovery of the South Rusty Mountain showings.

1982: Preliminary mapping, geochemical sampling, and
trenching of the South Rusty Mountain showings.
Demobilization of the underground mining equipment.
Completion of the metallurgical studies.

REGIONAL GEOLOGY

Rocks in the Kathleen Lakes-Rackla River area trend north-west and range in age from Helikian to Triassic. The southern half of the area is underlain by Paleozoic clastic rocks, and the northern half by Helikian to Hadrynian carbonates and clastics, in places unconformably overlain by carbonates of Ordovician-Silurian age. The two halves are separated by a zone of south dipping thrust faults collectively termed the Dawson Thrust. Along this thrust zone, slate, quartzite, conglomerate, dolomite, limestone, volcanics, and chert, informally known as the Grit Unit of Hadrynian age, are thrust over Ordovician-Devonian dolomite, black shale, and chert. To the north of the thrust zone, the Ordovician-Devonian package overlies Hadrynian rocks. To the south of the thrusts, the Grit Unit is unconformably overlain by a thick Paleozoic sequence of shale, siltstone, and quartzite.

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REGIONAL ECONOMIC GEOLOGY

The area hosts the well known United Keno Hill silver mines, as well as the Goz Creek zinc deposit owned by Barrier Reef Resources, the Craig lead-zinc-silver deposit discovered by McIntyre Mines, and the Val-Vera silver-lead-zinc deposits on Rusty Mountain. Other commodities under development include gold and tungsten at Dublin Gulch (Canada Tungsten Corporation and Queenstake Resources).

The Kathleen Lakes-Rackla River-Bonnet Plume area is essentially a carbonate-hosted lead-zinc district, featuring breccias and veins mineralized with galena, sphalerite, and pyrite and their oxidation products. The silver-lead deposits at Keno Hill are not comparable in terms of age and lithology of host rocks, mineralogy, and, in most cases, silver content of ores.

The presence of silver in the carbonate hosted deposits of the Kathleen Lakes-Rackla River-Bonnet Plume district appears to depend on the presence and distribution of tetrahedrite-tennantite. Deposits in Early Paleozoic rocks in the Bonnet Plume area contain abundant sphalerite but only localized, low grade silver values. The Rackla River deposits including the Craig, are hosted by Paleozoic

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silicified dolomite lenses within a Paleozoic (Carboniferous?) argillite-shale unit. The West Zone deposit on the Craig claims contains abundant galena with lesser sphalerite and tetrahedrite. Silver values are higher than those in the Bonnet Plume deposits; this appears to be due to the greater abundance of galena and associated tetrahedrite.

The Val-Vera deposits on Rusty Mountain generally contain abundant silver in the form of tetrahedrite in association with galena. Several smaller showings are sphalerite rich with minor galena and tetrahedrite; these contain relatively little silver. The sulfide mineralogy of the Rusty Mountain deposits, while simpler than that of the Keno Hill veins, is more complex than that of the Bonnet Plume and Rackla River deposits.

A further striking feature of the Rusty Mountain deposits as compared to the others is the lack of silicification of the host rocks, and the lack of quartz as a gangue material. Pervasive silicification is ubiquitous in the higher grade sections of the Bonnet Plume and Rackla River breccia and stockwork deposits.

PROPERTY GEOLOGY

The Val-Vera property is underlain by sedimentary, volcanic, and intrusive rocks of Precambrian to possibly Mesozoic age. They are generally unmetamorphosed and lack evidence of major internal strain. Rocks of differing ages occur in adjoining blocks, apparently separated by high angle faults. Correlation of units in adjoining panels or blocks is difficult, suggesting considerable displacement along the faults.

The geology of the area has been mapped by Mr. S. Blusson and Mr. D. Templeman-Kluit of the Geological Survey of Canada, as well as the writer and other former Prism geologists. Considerable disagreement exists amongst these workers as to the ages of the various units; however, lithology and structure appear to be subjects of general agreement.

The following description is based on the writer's observations over five field seasons. Areas of contention will be discussed as they are described.

The oldest rocks exposed, which host the main Vera deposit, consist of moderately north dipping, orange weathering,

grey to brown slates with interbedded stromatolitic dolomite. The two lithologies exhibit all gradations from dolomitic slate to slightly argillaceous dolomite. These rocks are considered by the writer to belong to the Wernecke Assemblage (Gillespie Lake Group?) of Proterozoic age. This old block of rocks forms a fault-bounded triangle on the northwest flank of Rusty Mountain.

To the north, east, and south lies a sequence of black to brown slate interbedded with green argillite, siltstone, and cherty argillite, massive greenstone, and minor black shale, black limestone, and conglomerate. This unit is generally moderately south dipping and underlies most of Rusty Mountain. The greenstone units have been mapped in detail in the vicinity of the south Rusty Mountain showing and on the east flank of Rusty Mountain. In these areas they display elongated elliptical sections and are generally conformable to the enclosing sedimentary rocks, indicating an extrusive origin. Textures within individual greenstone units range from fine grained ("andesite") to coarse grained and equigranular ("diorite"). Trachytic textures ("amphibolite") are also present but scarce. The greenstone units contain abundant chlorite, epidote, and iron carbonate, typical of greenschist facies metamorphism.

The fine grained clastic sediments in the package range from rare black sooty shale to green argillite with some tuffaceous characteristics. Conglomerate, sandstone, and limestone-dolomite are rare.

The age of this unit is unknown. Blusson assigns it to the Hadrynian (Blusson, personal communication, 1979) and Templeman-Kluit assigns it to the Devonian-Mississippian on the basis of similarity to rocks in the Pelly Mountains and central Yukon (Templeman-Kluit, 1981). The writer believes it to correlate to the basal unit (Unit A) of the Pinguicula Group, of Hadrynian age (Eisbacher, 1978).

Lying to the south of the slate-greenstone package is a discrete sequence of quartzite, argillite, and laminated dolomite. This sequence overlies the shale-greenstone unit; the contact appears to be either a low-angle, south dipping fault or a profound angular unconformity. The former explanation is preferred by the writer, since the contact is marked by a pronounced scarp and considerable brecciation and deformation.

The quartzite-argillite-dolomite package is a northwest trending northeast-dipping conformable sequence of white to yellow sugary textured orthoquartzite with minor

interbedded black argillite overlying minor brown shale, stromatolitic dolomite, and a thick unit of laminated, thin bedded, carbonaceous dolomite. This dolomite hosts most of the showings on the Val claims and is referred to as the "Val dolomite". This unit is very distinctive and has been traced by the writer from Kathleen Lakes to the Bonnet Plume River near Bonnet Plume Pass, a distance of over 40 miles. Occurrences of galena, sphalerite, and barite were noted in the unit at intervals over the entire distance.

On the southwestern section of the Val claims, the quartzite-dolomite sequence is repeated through lateral or thrust faulting. The Val dolomite has a gentle northwestern dip near the Quartzite showing, a mile north of the East Rackla River.

The writer considers the quartzite-dolomite package to be an unbroken conformable sequence, of somewhat younger age than the slate-greenstone unit to the north. However, Tempelman-Kluit (1981) divides the sequence into two and assigns the quartzite-argillite member to the Pinguicula Group of Hadrynian age, and assigns a tentative Paleozoic age to the "Val dolomite". Blusson (personal communication, 1979) considers the entire quartzite-dolomite sequence to

correlate to Units D and E of the Pinguicula Group (Eisbacher, 1978).

Dolomite, limestone, and a distinctive sandstone-conglomerate unit, containing pebbles of cherty iron formation, are exposed to the east of the quartzite-dolomite sequence. The dolomite-limestone unit bears a strong resemblance to the Ordovician-Devonian carbonates exposed to the south; the conglomerate is probably part of the lower Rapitan Formation of Late Precambrian age (Eisbacher, 1978).

MINERAL DEPOSITS

A total of 15 silver-lead-zinc showings have been found to date on the Val-Vera property. Seven of these have been tested by diamond drilling, to some extent. Two remain undrilled but appear to have some potential for development of economic reserves. The most significant deposit outlined to date appears to be the Vera Main Zone, on the northwest flank of Rusty Mountain.

This report will focus on the Vera Main Zone and the two undrilled showings, known as the quartzite and South Rusty Mountain showings.

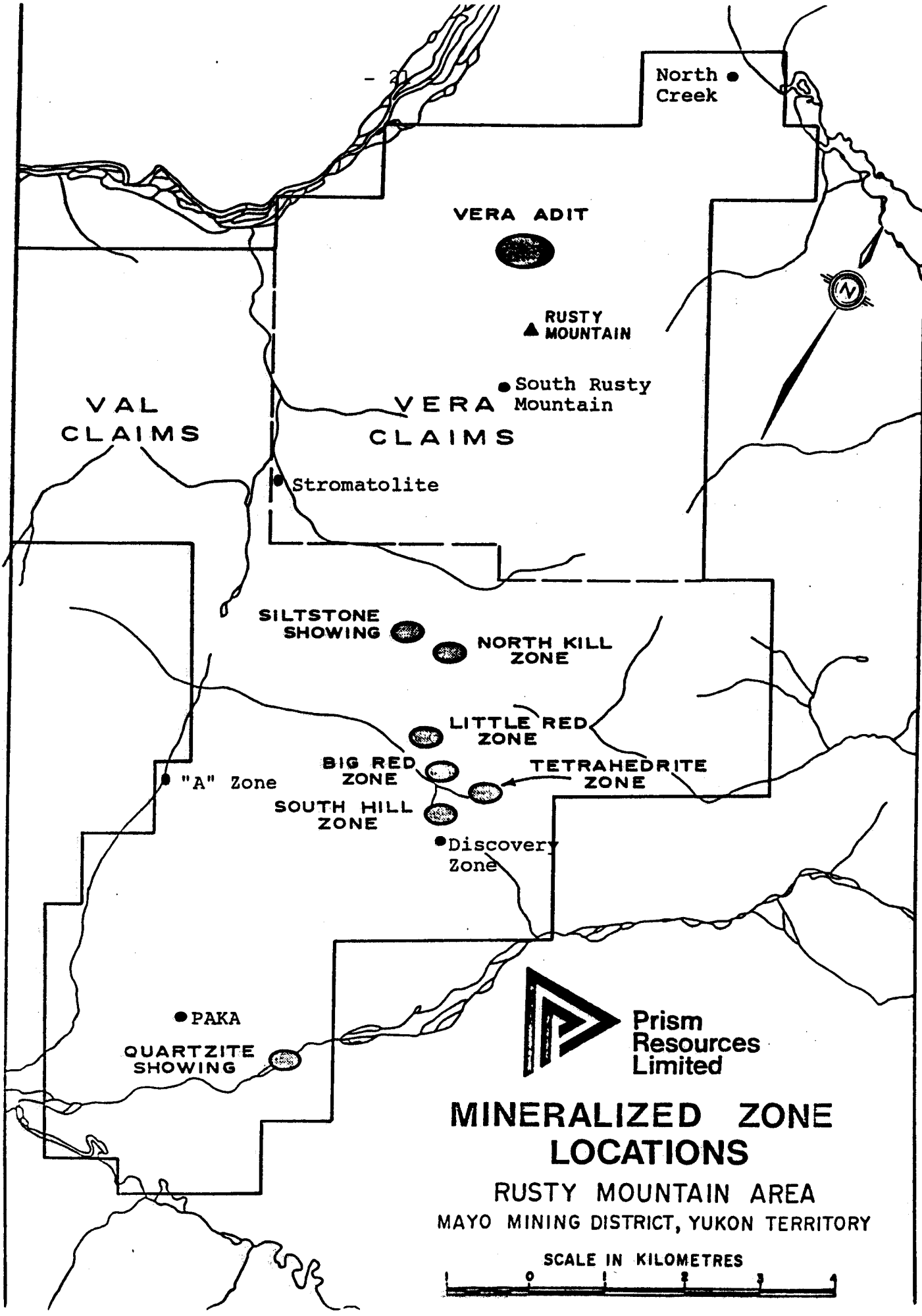
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The Vera main zone is a vein-fault striking east-northeast and dipping steeply north. It is contained within a moderately north dipping unit of orange weathering grey argillaceous dolomite, and is marked on surface by a linear topographic depression filled at intervals with weathered, mineralized rubble ranging in size from small pebbles to blocks weighing many tons. Most of the rubble is coated with black manganese oxides, limonite, and smithsonite, the oxidation product of sphalerite. Blocks of nearly massive galena and relict sphalerite occur in the rubble, but most of the material contains disseminated, oxidized sulfides of lead and zinc in a dolomite-ankerite-siderite gangue.

Trenching along the trace of the vein-fault exposed weathered mineralized material in place at intervals, but generally was not successful in exposing bedrock.

The Vera Main Zone has been tested by surface diamond drilling (over 22,000 feet in 74 holes), underground diamond drilling (1,788 feet in 11 holes), and 1,908 feet of underground drifting and crosscutting. The strike length of the entire structure as defined by surface drilling is approximately 2,150 feet. The drilling has tested the structure to depths of 300-500 feet below



North Creek ●

VERA ADIT

RUSTY MOUNTAIN ▲

● South Rusty Mountain

VAL CLAIMS

VERA CLAIMS

● Stromatolite

SILTSTONE SHOWING ●

NORTH KILL ZONE ●

LITTLE RED ZONE ●

BIG RED ZONE ●

TETRAHEDRITE ZONE ●

● "A" Zone

SOUTH HILL ZONE ●

● Discovery Zone

● PAKA QUARTZITE SHOWING ●



Prism Resources Limited

MINERALIZED ZONE LOCATIONS

RUSTY MOUNTAIN AREA
MAYO MINING DISTRICT, YUKON TERRITORY

SCALE IN KILOMETRES



surface (150' to 250' below drift level).

This exploration has defined two zones of mineralization, termed the East and West Zones, separated by an erratically mineralized and incompletely explored "Barren" zone.

The East and West Zones consist of "shoots" of somewhat consistent lead-zinc mineralization with high silver values. Underground, the mineralization displays a number of textures, the most common being "disseminated sulfides - mostly sphalerite and pyrite (occurring in pods) but also finely disseminated galena locally" (Ward, 1981). Massive, plumose and "steely" galena occur in pods and narrow veins in both the East and West Zones. These are discontinuous and volumetrically minor but contain large amounts of silver; they were sampled separately as a matter of course and routinely returned values of over 100 ounces per ton.

The degree of oxidation, as indicated by the presence of zinc oxidation products, appears to decrease with depth. Fault gouge, consisting of limonitic mud, is present throughout the West Zone, particularly on the hanging wall, but is less prevalent in the East Zone, which was penetrated at a greater depth below surface (Ward, 1981).

The wall rocks consist of "very hard, fine grained, dark grey to black massive rock" (Ward, 1981). The footwall and hanging wall are competent enough to stand without timbering in most sections, although bad ground conditions were encountered in the Western West Zone at about 80 feet below surface.

Potential for increasing the reserves of the East and West Zones lies primarily at depth. The possibility that the zones rake steeply eastwards is apparent from a study of the longitudinal sections.

There is potential for additional tonnage below the -50m level, (approximately 400 feet below surface) in the West, "Barren", and East zones over a strike length of approximately 1000 feet. Six drill holes spaced 150 feet apart at approximately the -50m level, which were drilled in 1979 and 1980, indicate mineralization grading between 2.6 and 12.5 ounces per ton silver over widths of 3 to 21 meters along this section. No deeper holes have been drilled to test this open zone.

No drill holes have yet been attempted at any great distance west of the West Zone. Discoveries of mineralized float and low-intensity soil anomalies in this direction suggest

the possibility of another ore shoot west of the West Zone.

The South Rusty Mountain showing is approximately 1 1/2 miles due south of the Vera Main Zone. It consists of trains of quartz-siderite-ankerite boulders lying in a gentle northeast-trending depression on the south slope of Rusty Mountain. The boulders were found during a routine prospecting traverse late in 1981. Some of the material had coatings of malachite and contained small amounts of tetrahedrite, therefore material was taken for assay. The assay returned 0.34% lead, 0.36% zinc, 2.15% copper and 110 oz/ton silver.

In 1982, a short programme of mapping, geochemical sampling, and trenching was carried out. Despite problems with permafrost, the trenching revealed discontinuous pyrite-tetrahedrite mineralization in a gangue of brecciated greenstone with a quartz-siderite matrix. The breccia appears to be near the north side of a body of andesite (greenstone), in a fault zone. One trench exposed a 1 1/2 foot wide section of breccia containing 6-8% tetrahedrite, with lower grade material on either side. A 7 1/2 foot chip sample taken across the whole section assayed 59.5 oz/ton silver. A selected sample of material from the tetrahedrite-rich section, containing about 10% tetrahedrite,

assayed 235.5 oz/ton silver (Dewonck, Lalonde, et al, 1982). Trenches along "strike" revealed only sparse sulfides which returned silver assays ranging from 0.48 to 2.35 oz/ton over widths of 2 to 8 feet. Because of limited time, money, and explosives, it was impossible to determine the true strike of the tetrahedrite bearing breccia by trenching. A more thorough investigation is warranted.

The Quartzite showing lies on the Val claims, approximately 8 miles south-southwest of the Vera Main Zone. It lies on the south bank of a tributary of the Rackla River. It is exposed in an outcrop of fractured, brecciated, yellow to pinkish-brown orthoquartzite.

Medium-grained galena, reddish-brown sphalerite, pyrite, and minor tetrahedrite occur as breccia matrix and fracture filling. Major fracture directions in the main mineralized outcrop are north to northeast.

Unmineralized orthoquartzite in the vicinity of the showing strikes northeast and dips gently northwest. However, the dip attitudes within the main showing outcrop are much steeper.

Bulldozer trenching in 1979 exposed the main showing but

could not remove the heavy alluvial cover to the south of the showing. Soil sampling was conducted on an experimental basis but the heavy Recent alluvium is too thick to allow development of anomalies near surface.

An outcrop of heavily fractured orthoquartzite directly across the river from the showing contains veinlets of sphalerite in a carbonate gangue. It is possible that the main showing and the one across the river are crossed by a fracture or fault zone trending north-northeast.

METALLURGY AND MINERALOGY

Bacon Donaldson and Associates Ltd., of Vancouver, B.C., performed some preliminary metallurgical and mineralogical testwork in 1980, upon samples of drill core from the East and West zones of the Vera deposit. The results of the mineralogical studies indicate that "silver is present as tetrahedrite-tennantite, both as discrete grains and as intergrowths with galena." (Hollingshead and Vreugde, 1980). Galena and sphalerite were not found to carry silver. Initial flotation tests revealed considerable variation in zinc recovery and poor recoveries of silver, lead, and zinc in oxidized samples. Recommendations were made to pursue these problems when bulk samples were available.

A bulk sample was collected during the 1981 underground exploration programme and submitted to Bacon Donaldson and Associates Ltd. The sample consisted of muck collected from each round taken from the East and West Zones. Approximately 170 pails of muck collectively weighing in excess of 10,000 lbs., were crushed, split, and blended to represent the East and West zones. Composite samples, representing the deposit as a whole, were also made up. A programme of testing was initiated in December, 1981, and completed in May, 1982. The work was done by Bacon Donaldson under the supervision of Wright Engineers Ltd., Mr. D.A. Livingston, P.Eng., and Mr. C.M. Lalonde of Prism Resources Ltd.

The test program consisted of twelve flotation tests on the West Zone composite sample, nineteen tests on the East Zone composite, and four tests on the East-West composite sample. Mineralogical studies, using conventional ore microscopy techniques and a scanning electron microscope (SEM) were also carried out to provide guidance to the metallurgical testwork.

The conclusions reached were as follows:

(A) Mineralogy

(1) Lead occurs principally as galena. Minor oxidized lead is in the form of anglesite (lead sulfate).

(2) Zinc occurs as sphalerite, and to a lesser extent as smithsonite. Most sphalerite is oxidized to some degree.

(3) Silver is present in tetrahedrite and is not carried in galena or sphalerite. The silver content of tetrahedrite shows considerable variation.

(4) Chalcopyrite, arsenopyrite, pyrite, and magnetite are present but not abundant,

(5) Iron and iron-manganese oxides are common. Argentite is present in some of these oxide aggregates.

(B) Metallurgy

(1) Sulfide and oxide flotation tests produced satisfactory recoveries of lead and silver.

(2) Predicted continuous-operation recoveries for the West Zone are 89.6% for lead and 85.1% for silver; for the East Zone they are 76.6% for lead and 82.7% for silver.

(3) Predicted continuous-operation recoveries for the East-West composite sample are 83.3% for lead and 78.7% for silver. These results do not match expected results and should improve with further experimentation.

(4) Flotation of oxidized zinc minerals is not satisfactory. Since silver is not included in oxidized zinc

minerals except as minor argentite, further investigation is not warranted.

(5) Sample concentrate grades obtainable are as follows:
Lead concentrate: 55% lead, 5.25% zinc, 28.9 oz/ton silver, 7.27% iron, 1.34% copper, 2.57% arsenic. Zinc concentrate: 47.9% zinc, 7.17% lead, 129 oz/ton silver, 7.1% iron, 0.43% copper, 1.03% arsenic.

The final report recommends further testwork to determine the relationship between silver recovery and concentrate grade, and to determine the best method of controlling iron sulfide release into the lead oxide flotation feed. Further recommendations include investigations into tailings losses of lead and silver, marketability of concentrates, zinc recovery from tailings, possible cyanidation of tailings and the development of a feasibility study.

RESERVES

A number of independent reserves calculations have been made using drill and underground data from the Vera Main Zone.

Mr. D.H. James, P.Eng., using data from 1979 and 1980 drill holes, calculated that the Main Zone contains a total of

693,330 tons of material grading 8.85 oz/ton silver, 1.91% lead, and 1.75% zinc, in the drill indicated category. A further 242,440 tons grading 9.26 oz/ton silver, 1.54% lead, and 2.28% zinc were placed in the "possible" category.

These calculations were based on 44 drill hole intersections in the East and West Zones, to the -60 meter level.

Intersections of less than 3 meters (9.84 feet) were expanded to 3 meters. No internal waste blocks were included in the East and West Zones, on the expectation that selective mining of these zones would not be conducted, due to considerable and apparently random variation of silver grades from hole to hole. Specific gravity was held to be 2.7 gm/cm³. The sectional area of influence of each hole was calculated from the hole intercepts (true widths) noted in the drill logs and scaled distances half way to the adjacent holes (James 1980).

The parameters of these calculations were furnished to G.H. Giroux, P.Eng., of Montgomery Consultants Ltd., and Dr. A.J. Sinclair, Ph.D., P.Eng., for geostatistical treatment. Their report concludes that there is "a 95 percent certainty that the Vera deposit contains 398,000 metric tons (437,800 tons) of 212 gms/metric ton (5.62 oz/short ton) silver" (Giroux and Sinclair, 1980).

A later report by Dr. Sinclair concludes that "indicated global geological reserves of the East and West shoots are between 500,000 and 600,000 metric tonnes (550,000 and 660,000 tons) as determined by two independent methods of calculation. Estimates of average silver grade are 273 g/tonne (7.21 oz/ton) and 293 g/tonne (7.77 oz/ton) for geostatistical and manual section calculations respectively. A reduced tonnage appears minable at double the foregoing grade estimates" (Sinclair, 1982).

Mr. W.T. Irvine, P.Eng., in a draft letter to Dr. H.C. Morris, President of E & B Exploration Ltd., reports the average assays from underground sampling in the West Zone to be 14.3 ounces/ton silver over an average true width of 3 meters (9.84 feet) and a strike length of 201 meters (659 feet). Results from the East Zone are 26.8 ounces/ton silver over an average true width of 3 meters and a strike length of 121 meters (397 feet). These results were calculated using assay and geological plans supplied by E & B Explorations Ltd. Assay intervals were expanded to 3 meters in cases where the mineralization widths (assay widths) were narrower than drift width. Mr. Irvine reports that comparisons of underground average assays with the best 3 meter average assays from nearby drill holes (12 holes in all) indicate that the drill hole assays are 10%

higher in the East Zone and 20% higher in the West Zone.

He further reports that the higher average width of 5.9 meters reported by Mr. D.H. James, P.Eng. (James, 1980), obtained from surface drill hole data, is the result of the inclusion of "quite low grade material" in drill hole intersections. Mr. Irvine concludes that a tonnage of "slightly over half" of that reported by D.H. James appears available at grades of 14.3 ounces/ton silver (West Zone) and 26.8 ounces/ton (East Zone) (Irvine, 1981).

The writer, as a former employee of Prism Resources Ltd., is thoroughly familiar with all of these studies, since they were prepared in-house (James, 1980) or delivered and discussed during his period of employment with the company. It is clear from the various calculations made that tonnages will vary according to the width and grade parameters selected. The studies made by D.H. James, Giroux, and Montgomery are dependent on surface drill hole data and are based on the assumption that selective mining of high grade material would be impractical. Later studies, made with underground data available, have incorporated the possibility of selective mining of higher grade material.

The conclusion that can be drawn from this change of stance

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is that the underground work has apparently revealed greater continuity of mineralization than was indicated by surface drill hole assays. It also appears that further underground work may reveal somewhat discontinuous but minable material in areas where surface holes indicate very "spotty" mineralization.

The question of reserves is obviously not yet answerable in view of the present development of the deposit. The writer feels that surface and underground diamond drill results are reliable enough to permit approximate estimates but final dependable calculations cannot be completed until conventional underground development has been carried out.

RECOMMENDATIONS

The Vera Main Zone is open to depth and along strike to the west. Some evidence exists that the zone is also open to the east. A programme of surface diamond drilling is recommended to test the depth extension of the East and West Zones below the -75 meter level and to explore for mineralization west of the West Zone between 4800 E and 5200 E (50 to 450 meters west of the presently known limits of the zone).

Specific recommendations are as follows:

- 1) A series of holes below the East and West Zones between 5350 E and 5650 E. The holes will be drilled in tiers beginning with 6 holes at approximately the -75 meter level. They should be drilled on section with previous holes as often as possible, to allow interpretation of results without extrapolation of section.

If all or some of the first holes intersect mineralization of satisfactory width and grade, follow up holes will be drilled accordingly, either to intersect at greater depth or to fill in laterally at 25 meter intervals. Fill in drilling in the event of success in all of the first 6

holes will require 7 additional holes of similar length. Deeper drilling will initially require 6 holes either to the -100 or -125 meter level, depending on the strength and geometry of the mineralized structure at the -75 m level.

The total length of drill holes required in the first round of drilling is estimated at 1125 meters (3680'). The second round will require a total of 1325 meters (4346') for fill-in drilling, and up to 1800 meters (5904') for the first six deeper holes, depending on the depth of intersection desired.

2) Up to 10 holes of 200 to 300 feet in length at 100-200 foot intervals, west of the West Zone. These will be drilled at shallow angles in a staggered fence pattern to compensate for possible offset of the Vera vein-fault structure to the south of the projected strike trace.

3) Three or more holes, initially 100-200 feet in length, on each of the South Rusty Mountain and Quartzite showings. Experience at Rusty Mountain has shown that it is difficult to predict the number of holes required to establish the potential of a previously untested showing. However, a maximum of 3000 feet should be adequate for initial purposes.

Sites for the Vera Main Zone drilling will have to be surveyed and constructed before the drill is moved onto the property. A Caterpillar D-6 bulldozer is currently onsite and should be able to accomplish this task.

Sites for drilling of the South Rusty Mountain and Quartzite showings are already adequate due to ideal topographic conditions.

Drill moves will be by bulldozer on the Vera Main Zone and by helicopter on the other showings.

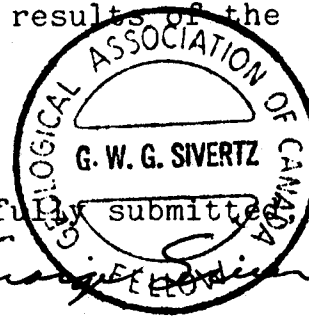
Fuel and equipment for the project can be hauled by winter cat train or by fixed wing aircraft to the property or the nearby winter or summer airstrips.

COST ESTIMATE

(1) Direct drilling cost: 20,000 feet at \$22.00/ft.	\$ 440,000
(2) Drilling costs, indirect:	
Mob-demob - Mayo	5,000
Drill supplies, core boxes	15,000
Fuel-200 bbl f.o.b. Mayo	30,000
Drill crew-extra labour	25,000
(3) Helicopter (casual) for mob-demob, drill moves, supplies	50,000
(4) Fixed wing (casual) as above	40,000
(5) Camp costs (groceries, fuel)	20,000
(6) Contract labour, including consulting geologist, surveyor, cook, catskinner, assistant.	100,000
(7) Assays 500 @ \$25 incl. shipping	12,500
(8) Travel, Communications, Expediting	30,000
(9) Engineering, supervision, reports	<u>15,000</u>
Total Costs	782,500
Contingencies, 15%	<u>117,375</u>
Grand Total	\$ <u>899,875</u>
Prism Resources' share, 29.167%	\$ 262,466.54

Further work will be contingent upon the results of the above programme.

Respectfully submitted



G.W.G. Sivertz, B.Sc., F.G.A.C.

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& Development Ltd.

December 19, 1983

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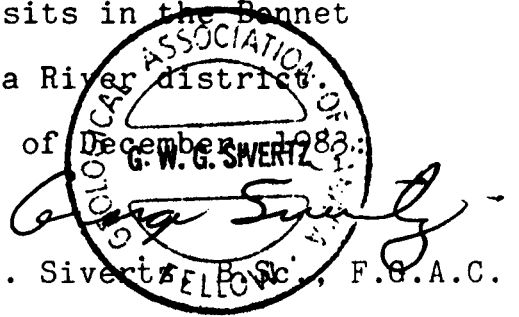
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CERTIFICATE

I, GEORGE WILLIAM GUSTAV SIVERTZ, residing at 6100 Twintree Place, Richmond, British Columbia do hereby certify that:

1. I am a geologist having been practising my profession for seven years.
2. I am a graduate of the University of British Columbia, having received a B.Sc., (Honours) degree in Geology in 1976.
3. I am a member of the C.I.M.M. and a fellow of the Geological Association of Canada.
4. I have no interest direct or indirect in the property or securities of Prism Resources Ltd. nor do I expect to receive any such interest.
5. This report is based on a study of private, government and published reports and maps, and field seasons between 1978 and 1982 as a supervisor of the development work on the Val-Vera and other Prism Joint Venture properties in the area, regional exploration work in the district and personal familiarity with the deposits on Keno and Galena Hills, the deposits in the Bennet Plume area, and those in the Rackla River district.

Dated at Vancouver, B.C. this 19th day of December, 1983.



G.W.G. Sivertz, F.S.A.C.

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& Development Ltd.

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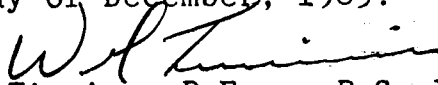
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CERTIFICATE

I, WILLIAM G. TIMMINS maintaining offices at #203, 4 Parkdale Cres. N.W., Calgary, Alberta do hereby certify that:

1. I am a geologist having been practising my profession since 1964.
2. I am a graduate of the Provincial Institute of Mining, Haileybury, Ontario and have attended Michigan Technological University, Houghton, Michigan.
3. I am a member in good standing of the Association of Professional Engineers of British Columbia and of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
4. I have no interest direct or indirect in the property or securities of Prism Resources Ltd. nor do I expect to receive any such interest.
5. This report has been written by G.W.G. Sivertz, B.Sc., F.G.A.C., under my direction and is based on private, government and private reports, supervision of exploration and development on the Val-Vera project during the field seasons of 1978-1982 by G.W.G. Sivertz, and personal collaboration and discussions with myself. Mr. Sivertz has been associated with me for the past two years and his work is well known to me.

Dated at Calgary, Alberta this 19th day of December, 1983:


W.G. Timmins, P.Eng., P.Geol.
W.G. Timmins Exploration
& Development Ltd.

W. G. TIMMINS EXPLORATION & DEVELOPMENT LTD.
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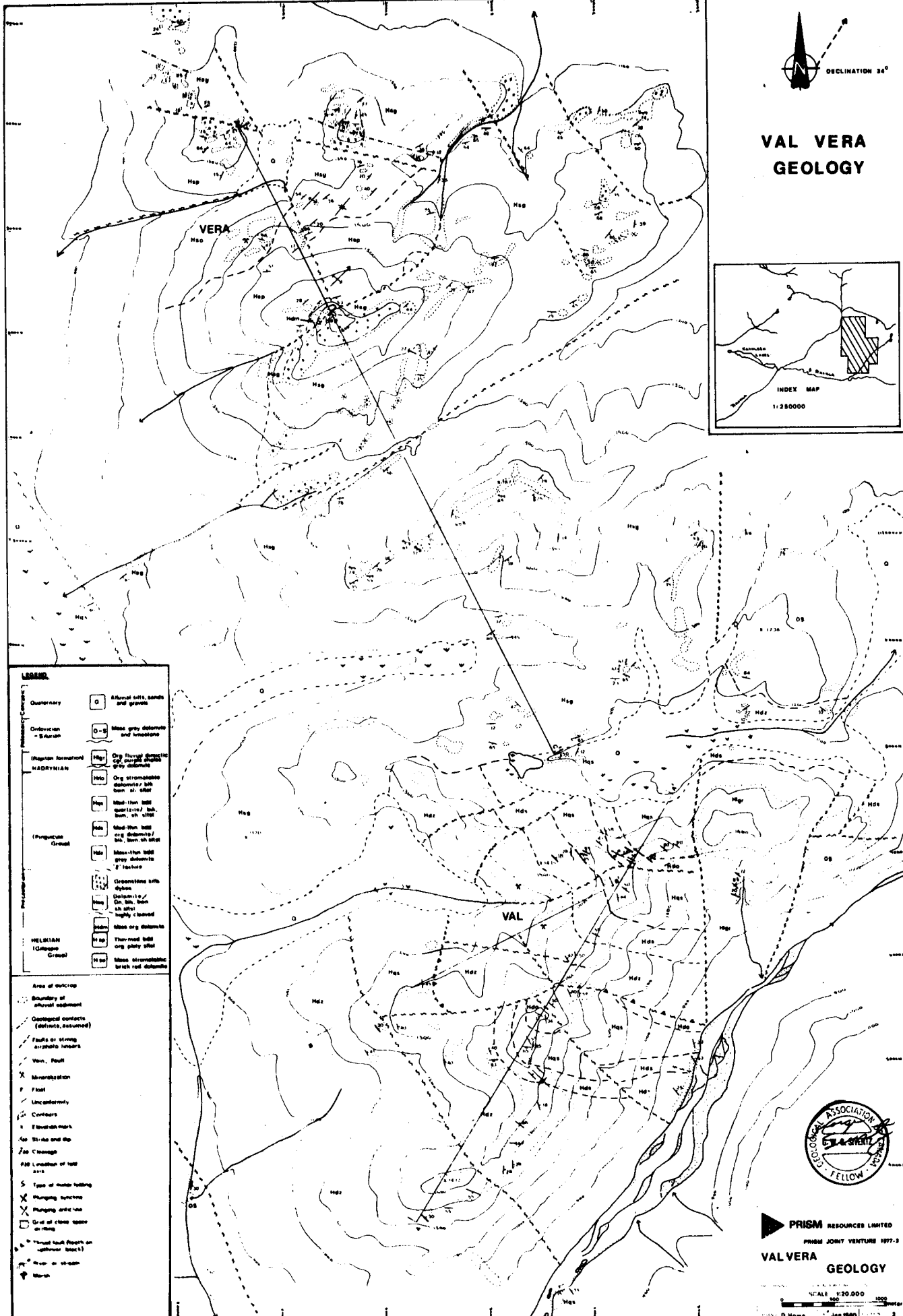
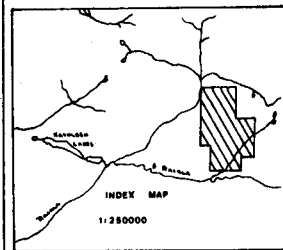
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VAL VERA GEOLOGY



LEGEND

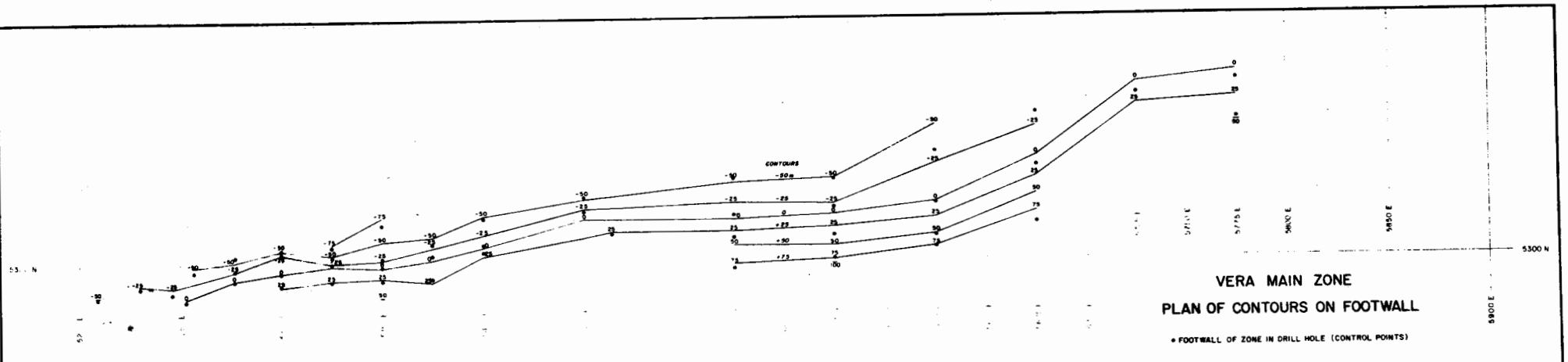
Quaternary	Q	Alluvial silts, sands and gravels
Ordovician - Silurian	O-S	Mass grey dolomite and limestone
Madrynian (Napier formation)	Mg1	Org fluvial deposits of grey dolomite
	Mg2	Org stromatolite dolomite with iron sh. at top
	Mg3	Med-thin bedded quartzite / sh. with sil. sh. at top
	Mg4	Med-thin bedded arg dolomite / sh. with sil. sh. at top
Pre-Madrynian (Proterozoic Group)	Mp1	Mass-thin bedded grey dolomite of texture
	Mp2	Greenstone with dykes
	Mp3	Dolomite / sh. with sil. sh. at top highly cleaved
	Mp4	Mass org dolomite
Helikian (Glenage Group)	Hs1	Thin-bedded arg. platy silt
	Hs2	Mass stromatolitic brick red dolomite
	Hs3	Mass stromatolitic brick red dolomite

- Area of outcrop**
- Boundary of physical sediment
 - - - Geological contacts (definite, assumed)
 - - - Faults or strong structural lineaments
 - - - Vein, Fault
 - X Mineralization
 - F Fault
 - U Unconformity
 - C Contour
 - Elevation mark
 - Strike and dip
 - Coverage
 - PS Location of hole sites
 - S Type of water feeding
 - X Hanging syncline
 - X Hanging anticline
 - Grid of cross section or ring
 - Trench fault (depth on uppermost sheet)
 - River or stream
 - Mine



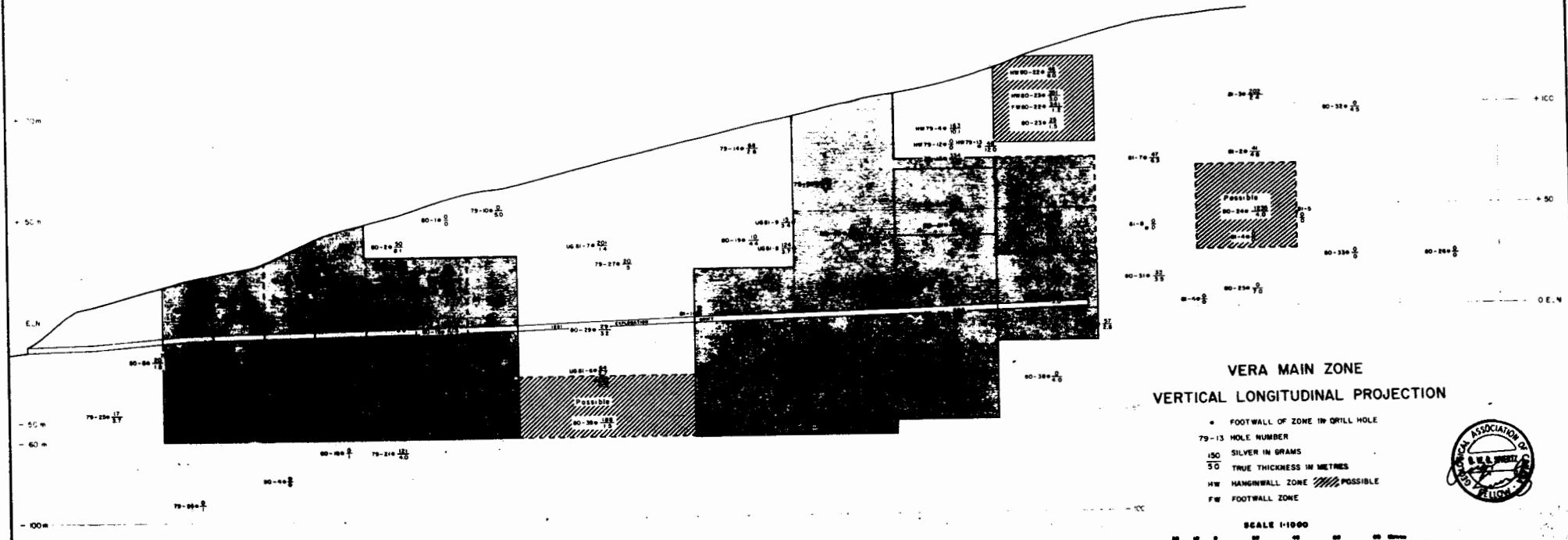
PRISM RESOURCES LIMITED
PRISM JOINT VENTURE 1977-2
VAL VERA GEOLOGY

SCALE 1:20,000
0 1000 2000 METERS
D Howe Jan 1980



**VERA MAIN ZONE
PLAN OF CONTOURS ON FOOTWALL**

• FOOTWALL OF ZONE IN DRILL HOLE (CONTROL POINTS)



**VERA MAIN ZONE
VERTICAL LONGITUDINAL PROJECTION**

- FOOTWALL OF ZONE IN DRILL HOLE
- 79-13 HOLE NUMBER
- 150 SILVER IN GRAMS
- 50 TRUE THICKNESS IN METRES
- HW HANDWALL ZONE
- FW FOOTWALL ZONE

