Geol. Rpt.

ASSESSMENT REPORT
ON THE
DRILLING PROGRAMME

DELLIE PROPERTY

SLOCAN MINING DIVISION,
BRITISH COLUMBIA
NTS 82F/10W, 82F/15W

for

OWNER: R.B. SAVAGE
OPERATOR: R.B. SAVAGE

by

D.W. RENNIE, B.A.Sc.
AINSWORTH, B.C.

DECEMBER 31, 1981

82F 14W, 15E

82F/NE 24

ASSESSMENT REPORT

ON THE

DRILLING PROGRAMME

DELLIE PROPERTY

SLOCAN MINING DIVISION, BRITISH COLUMBIA

NTS 82F/10W, 82F/15W

LATITUDE ~~49°15'~~ 49 45 N

LONGITUDE 117°57'W 116°57'

for

OWNER/OPERATOR: R.B. SAVAGE

by

D.W. RENNIE, B.A.Sc.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P.W. RICHARDSON

P. W. Richardson

AINSWORTH, B.C.

DECEMBER 31, 1981

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SUMMARY

A diamond drill programme has been completed on the Dellie Property near Ainsworth, B.C. The property consists of 10 Crown Granted Mineral Claims which are owned by R.B. Savage of Nelson, B.C.

The intent of this work was to find extensions of ore-grade mineralization down-dip and along strike from the present mine workings. The drill intersected coarse- to fine-grained sphalerite, pyrite and galena associated with a northwest-striking, southwest-dipping fault zone. At present, no ore bodies are known to exist on the Dellie Property.

INTRODUCTION

A diamond drill programme was carried out on the Dellie Claim which is located 3.4 air kilometers northwest of Ainsworth, B.C. The claim belongs to R.B. Savage of Nelson, B.C. and the programme was managed by him. Five holes were drilled, totalling 607.13 meters, and the target was intersected in all but one of the holes. A wire-line drill, owned and operated by Kootenay Exploration Drilling Ltd., was used to drill BQ-size holes.

The purpose of the drilling was to explore a northwest-striking mineralized fault zone which has supported small mining operations intermittently since 1911. This fault dips to the west at moderate angles and contains disseminated fine- to coarse-grained pyrite, sphalerite and galena with minor fine-grained chalcopyrite and pyrrhotite. The presence of native silver is reported by previous workers, but none was encountered during the course of this programme.

Silver values in the core are erratic, and range from trace to slightly over 15 oz/ton. Production records state that, up to 1967, a total of 2137 tons of ore were shipped from the property with an average grade of 101.5 oz/ton silver, 3.73% lead and 0.67% zinc. Most of this ore was hand-sorted, however, and the records do not give an accurate indication of the grade of the vein.

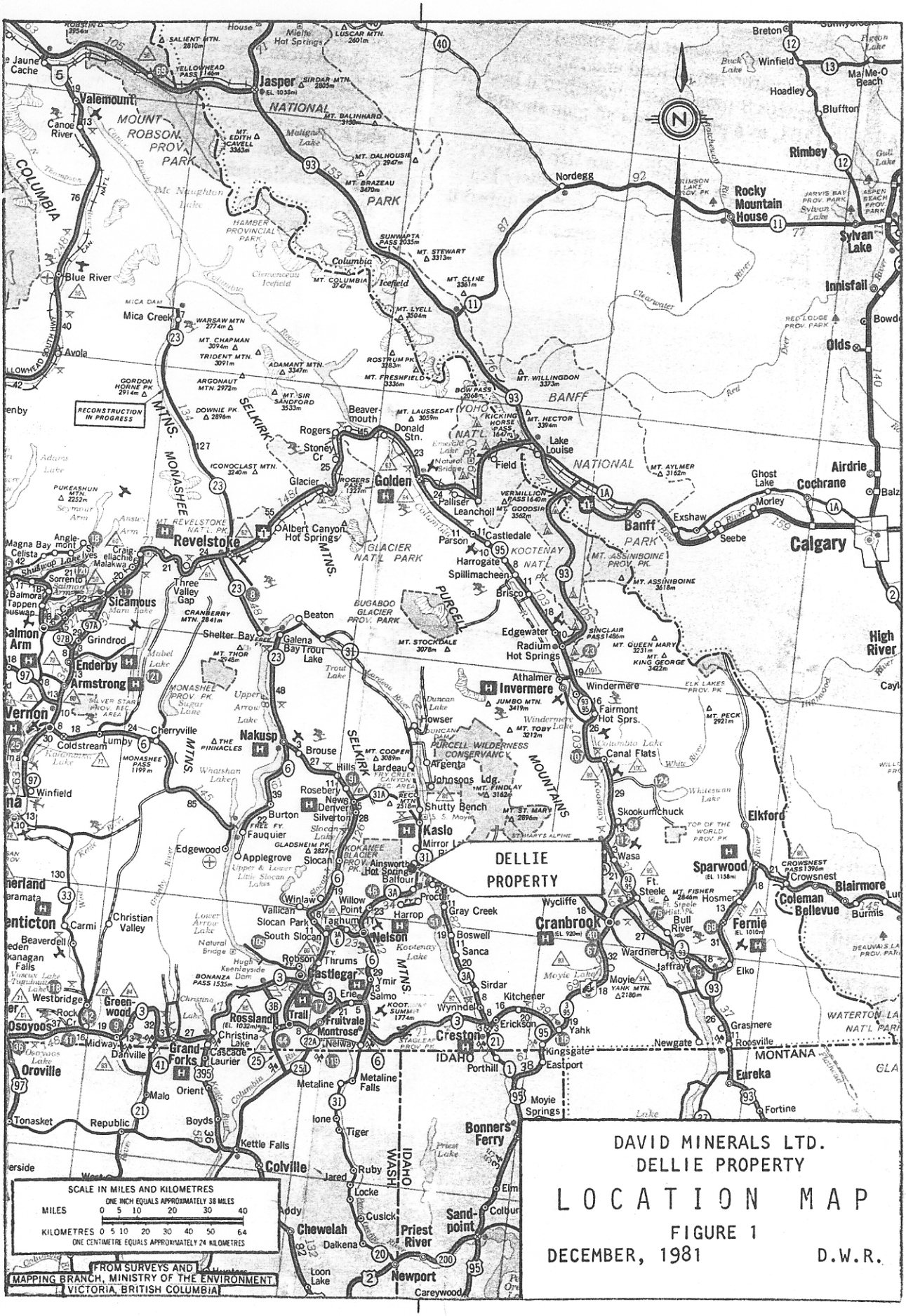
LOCATION AND ACCESS

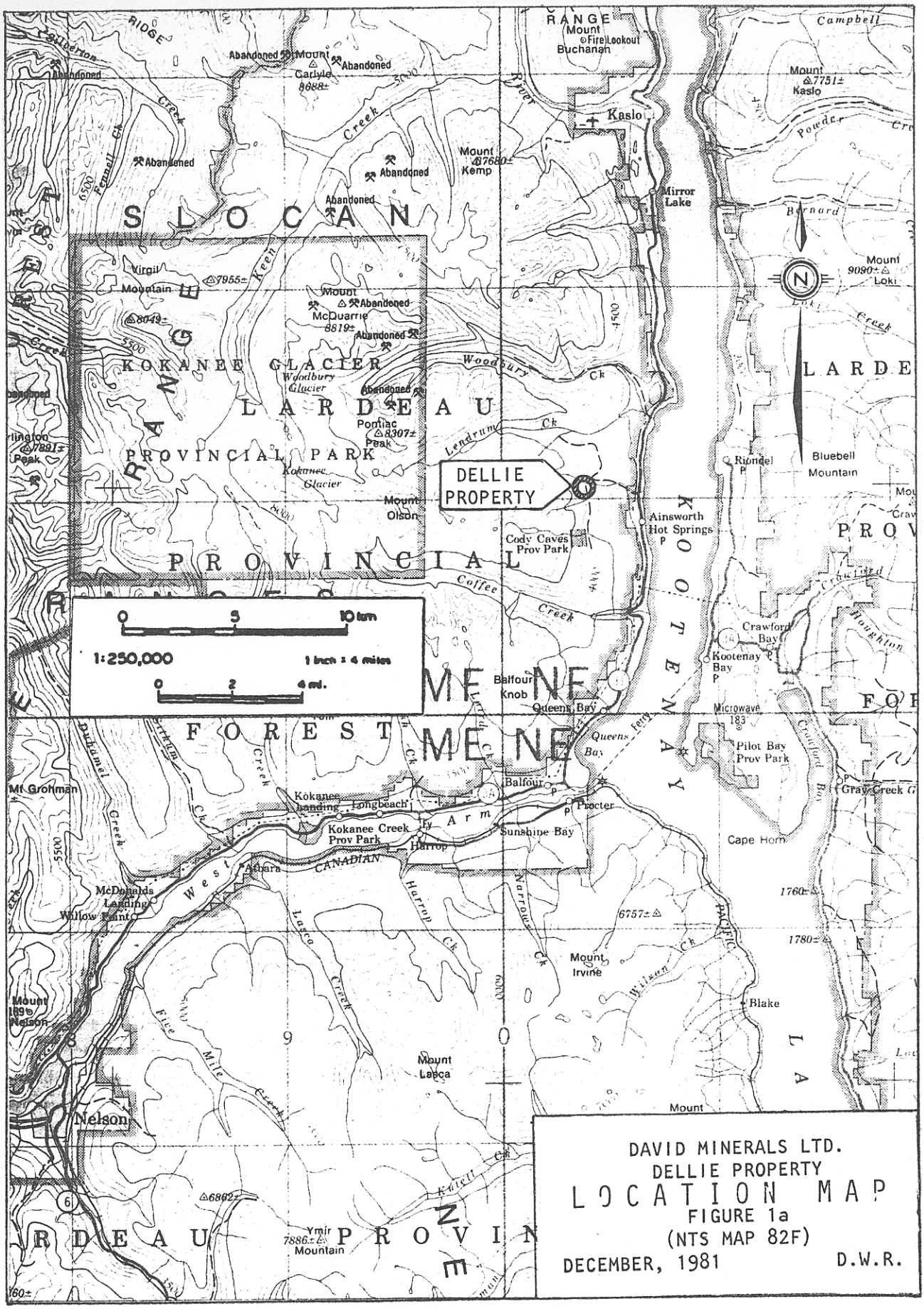
The claims are located on NTS map sheets 82F/10 and 82F/15 at latitude 49°15'N and longitude 117°57'W (see Figure 1). They are accessed by 7.9 km of dirt road which leaves Highway 31 at the Kootenay Florence townsite, 3.4 km north of Ainsworth, B.C. (see Figures 1, 2 and 3). Ainsworth is a small community located on the west shore of Kootenay Lake, approximately 50 km northeast of Nelson. The main centres of supply for mining and exploration operations are Nelson and Kaslo. Kaslo is a town situated 19 km north of Ainsworth.

The terrain in the vicinity of the claims is relatively steep with benched slopes rising out of Kootenay Lake at an average grade of 30 degrees. The area of interest lies at elevation 1380 meters, and is covered by deciduous and coniferous forest with moderate to small amounts of undergrowth. Portions of the property have been logged and a fire has also removed part of the forest cover.

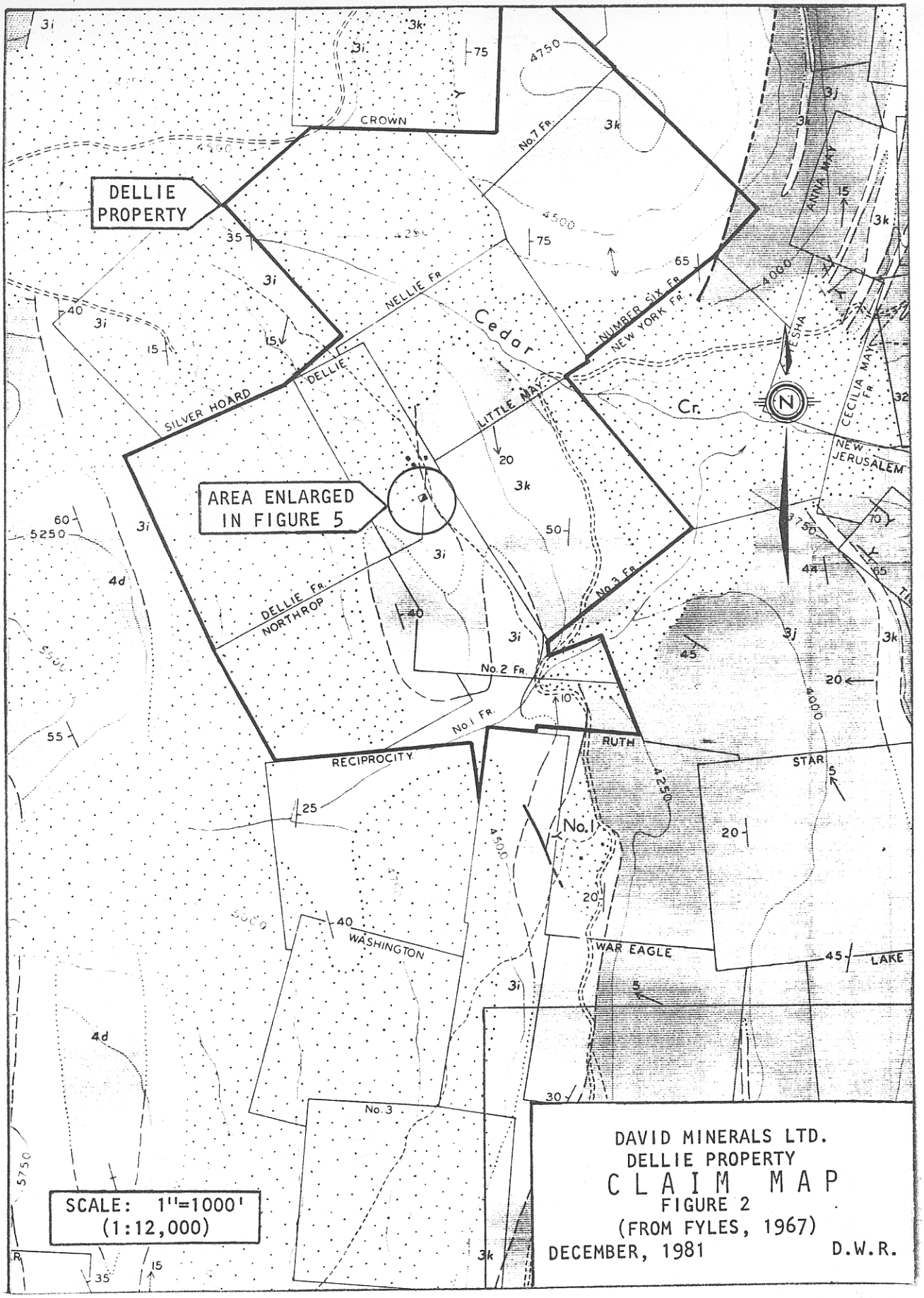
CLAIMS

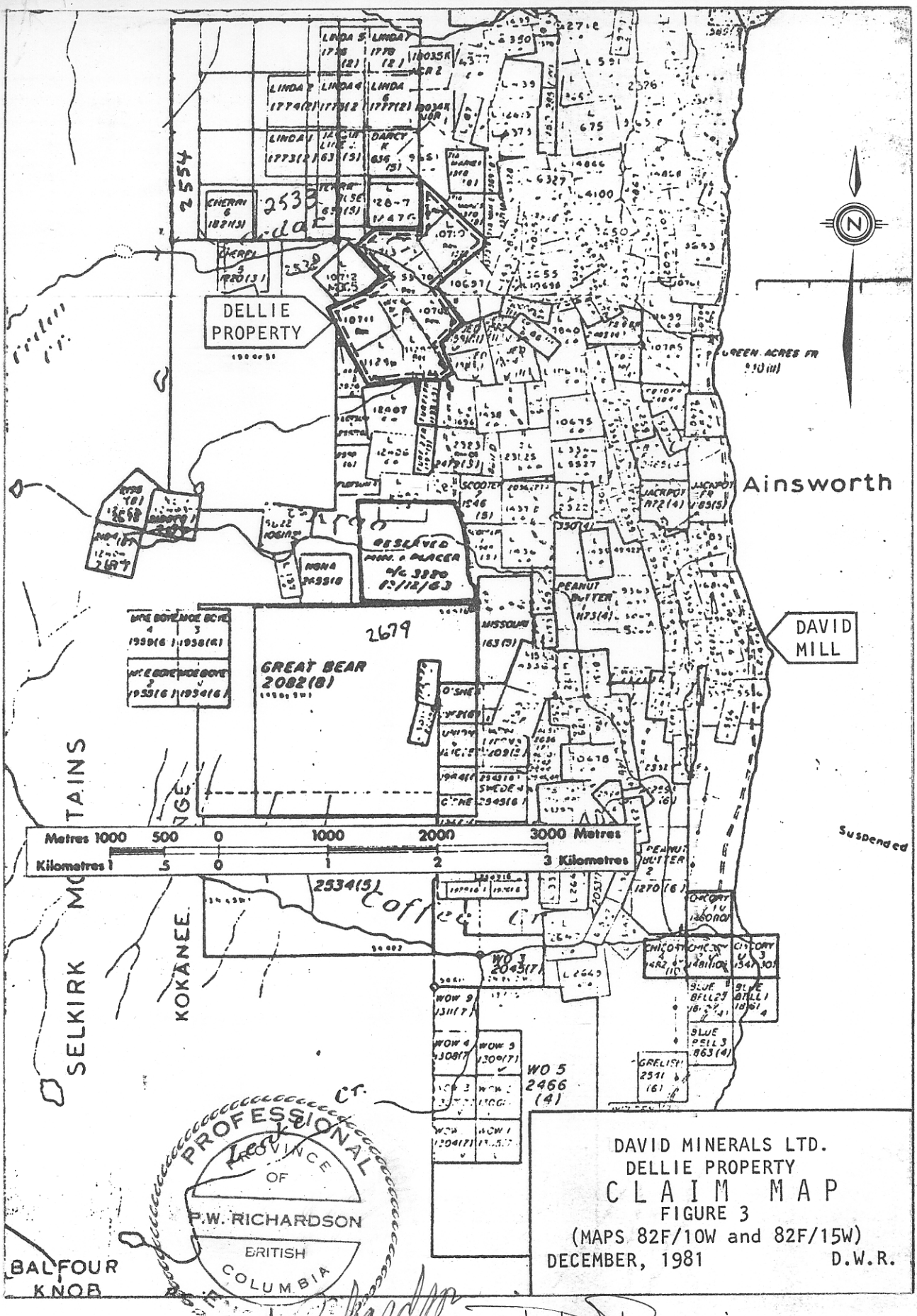
The claims are located in the Slocan Mining Division on Mineral Titles Reference maps M82F/10W and M82F/15W (see Figure 3). They are all Crown Granted claims belonging to R.B. Savage of Nelson, B.C. Pertinent claims data are listed below:


DELLIE
PROPERTY
SCALE IN MILES AND KILOMETRES
ONE INCH EQUALS APPROXIMATELY 38 MILES
MILES 0 5 10 20 30 40
KILOMETRES 0 5 10 20 30 40 50 64
ONE CENTIMETRE EQUALS APPROXIMATELY 24 KILOMETRES
FROM SURVEYS AND MAPPING BRANCH, MINISTRY OF THE ENVIRONMENT, VICTORIA, BRITISH COLUMBIA
DAVID MINERALS LTD.
DELLIE PROPERTY
LOCATION MAP
FIGURE 1
DECEMBER, 1981
D.W.R.



DAVID MINERALS LTD.
DELLIE PROPERTY
LOCATION MAP
FIGURE 1a
(NTS MAP 82F)
DECEMBER, 1981 D.W.R.


DELLIE PROPERTY
AREA ENLARGED IN FIGURE 5
CROWN
No.7 Fr.
NELLIE Fr.
Cedar
NUMBER SIX Fr.
NEW YORK Fr.
SILVER HOARD
DELLIE
LITTLE MAY
Cr.
CECILIA MAY Fr.
NEW JERUSALEM
DELLIE Fr.
NORTHROP
No.3 Fr.
No.2 Fr.
No.1 Fr.
RECIPROCITY
RUTH
STAR
No.1
WASHINGTON
WAR EAGLE
LAKE
No.3
SCALE: 1"=1000'
(1:12,000)
DAVID MINERALS LTD.
DELLIE PROPERTY
CLAIM MAP
FIGURE 2
(FROM FYLES, 1967)
DECEMBER, 1981
D.W.R.



DAVID MINERALS LTD.
DELLIE PROPERTY
CLAIM MAP
FIGURE 3
(MAPS 82F/10W and 82F/15W)
DECEMBER, 1981 D.W.R.

LOT NUMBER	CLAIM NAME
L.241	Dellie
L.5370	Little May
L.10695	No. 1 Fraction
L.10702	No. 3 Fraction
L.10710	No. 6 Fraction
L.10711	Dellie Fraction
L.10713	Nellie Fraction
L.10714	No. 7 Fraction
L.11296	Northrop
L.11297	No. 2 Fraction

The above conforms with the records filed at the Land Registry in Nelson, B.C.

HISTORY

The claims were first Crown Granted prior to 1900 but little work was done on them until 1911. Between 1911 and 1918, Silver Hoard Mines Ltd. operated the property. During that time, buildings were erected to house mine workers and machinery, a concentrator was built, a shaft sunk and over 500 feet of drifts and raises were driven. The mill had a rated capacity of 60 tons per day and employed both gravity and flotation methods to concentrate the ore.

From 1921 to 1927, the property was operated by leasers. In the 1924 Report to the Minister of Mines, it is recorded that the vein had been developed to a depth of 200 feet by a total of 2000 feet of workings.

Between 1928 and 1947, no work was recorded on the claims, but at some time during that period, the property was acquired by the Consolidated Mining and Smelting Co. Ltd.

For three years, from 1948 to 1950, the claims were leased to W. Lane of Ainsworth. He shipped 147 tons which graded 32.1 oz/ton silver, 5.4% lead and 6.3% zinc. After 1950, the mine lay idle again until 1967. At that time, leasers began to ship small amounts until 1970.

Most recently, R.B. Savage worked the claims under lease before acquiring ownership of them in 1980. He shipped 891 tons in 1972, which contained 102 ounces of gold, 3885 ounces of silver, 9265 pounds of lead, and 20,223 pounds of zinc. No further work was done until 1981 when 811.08 tons were shipped from the mine dumps to the David Minerals Ltd. concentrator at Ainsworth. This material graded 4.17 oz/ton silver, 0.49% lead, and 1.62% zinc.

REGIONAL GEOLOGY

Much of this section was taken from the B.C. Ministry of Mines Bulletin No. 53, "The Geology of the Ainsworth-Kaslo Area, British Columbia" by J.T. Fyles (1967).

The Ainsworth Camp is underlain by regionally metamorphosed Lower Cambrian to Upper Triassic volcanic and sedimentary rocks of the Lardeau, Kaslo, Milford and Slocan Groups (Fyles, 1967). These rocks form the western edge

of the Kootenay Arc and are bounded on the west by the Nelson Batholith (Fyles, 1967; Hoy, 1980). Many lenticular granite pegmatite and fine-grained granite sills and lamprophyre dikes and sills are present throughout the region, as well.

Metamorphism has resulted in the formation of phyllites, quartzites, schists, gneisses and marbles of various grades. The general trend of metamorphic grade is from west to east. The lowest grade rocks are those on the western edge of the area, nearest the Nelson Batholith (Fyles, 1967). The grade increases from chlorite and biotite zones in the west, through garnet and staurolite zones in the central part of the camp, to the kyanite zone in the rocks adjacent to Kootenay Lake (Fyles, 1967; Hoy, 1980). Retrograde metamorphism is evident in many localities within the Ainsworth area and contact metamorphism is common near the Nelson Batholith (Fyles, 1967).

The general strike of the rocks is north-south with moderate westerly dips, although occasionally, bedding may dip vertically or even to the east. The schistosity of the rocks is, in most areas, parallel to the bedding (Fyles, 1967; Rennie and Richardson, 1981).

Two phases of regional deformation of unknown age have resulted in the formation of attenuated isoclinal folds whose axial planes have, in turn, been folded (Fyles, 1967). Zones of more complex but smaller scale folding are common near faults.

Three north-trending strike faults divide the area into four slices. These faults dip to the west at approximately the same angle as the foliation and

bedding of the rocks in the area. Many smaller faults are present which parallel the major faults, and it is along them that most of the producing ore bodies occurred. Weaker northwest-striking and southerly-dipping fractures are also important economically. Both of these fracture systems are discussed in the next section.

VEIN SYSTEMS AND SULPHIDE MINERALIZATION

Ore deposits in the Ainsworth area can be classified into two types: replacement and vein. Each of these two types can be further divided into two subgroups (Fyles, 1967). The replacement deposits occur along northwest-striking fractures, especially where they intersect limestone beds. In the case of the Star, Ayesha, Buckeye, and Triumph properties, sulphide mineralization occurs along fractures which contain quartz-carbonate-sulphide veins (Fyles, 1967). The replacement of the limestone is confined to the areas adjacent to the veins and along limestone contacts with other rock units. Siderite is the predominant gangue mineral and is accompanied by disseminated galena, sphalerite, pyrite and pyrrhotite.

The second type of replacement deposit is also controlled by northwest-trending fractures, but little, if any, quartz or carbonates are found in them. Sulphide minerals occur as blebs and disseminations along these fractures (Fyles, 1967). Examples of this type of deposit were discovered in the Ainsworth Limestone and Early Bird Formations north of Cedar Creek near Ainsworth (Fyles, 1967).

Vein deposits were the principal ore bodies in the Ainsworth Camp, and represent the mineralized zone encountered during the drilling. Most important of these is the Highlander system which extends for 2000 meters from Loon Lake to Munn Creek. This network of veins strikes roughly parallel to the country rock, dips at moderate angles to the west and is typical of the first type of vein deposit. The second type of vein deposit strikes approximately 130 degrees and dips steeply to the south. Where these veins intersect limestones, the replacement deposits discussed above can occur. Sulphide minerals associated with both vein systems are fine- to coarse-grained, subhedral to euhedral galena, sphalerite, pyrite, pyrrhotite, and minor chalcopyrite, all of which may be disseminated or in veinlets. Native silver has been observed at the No. 1, Krao, and Silver Hoard claims (Fyles, 1967), but was not seen by the author. Gangue minerals are quartz, calcite, siderite and fluorite.

On the Dellie Claim, both replacement and vein deposits were encountered. The ore bodies occur as pods of sulphide mineralization along the main shear zone as well as along smaller, subsidiary fractures. Replacement mineralization occurs in the footwall marble.

Ore minerals were described by Schofield (1920) as coarse-grained sphalerite and galena with minor pyrite and chalcopyrite. He also reported the presence of native silver in fractures in the marble and that gangue minerals were green fluorite with small amounts of calcite.

The porous nature of the veins and wallrock marble allows relatively free movement of subsurface waters. This resulted in weathering of sulphides in

many places and the loss of water during drilling. In fact, on the Dellie Claim, it was reported that in the 1920's, a natural cave in the marble was being used by the miners as an inclined shaft (Ministry of Mines Annual Report, 1924).

PROPERTY GEOLOGY

The Dellie Claim is discussed by Schofield (1920) and Fyles (1967). They describe the ore body as occurring along a shear zone between the No. 1 Limestone on the east and black argillites on the west. On surface, the shear zone strikes 160 degrees and dips at moderate angles to the west. Below the 100 level of the mine, the dip changes to an easterly direction indicating the presence of an overturned syncline with axial plane dipping gently to the west. According to Fyles (1967) and Schofield (1920), the shear passes into an anticline and eventually dips to the west again (see Figure 4b).

The observations made by the author agree with the above descriptions, although the mine workings are now inaccessible and so the folding at depth could not be seen first-hand. However, the author does disagree with the two previous workers on one relatively minor point. That is, that the rocks underlying the property have undergone metamorphism and should be called phyllites and schists instead of argillites, and marbles instead of limestones. This is an insignificant change, and has no bearing on the exploration strategy employed on the property.

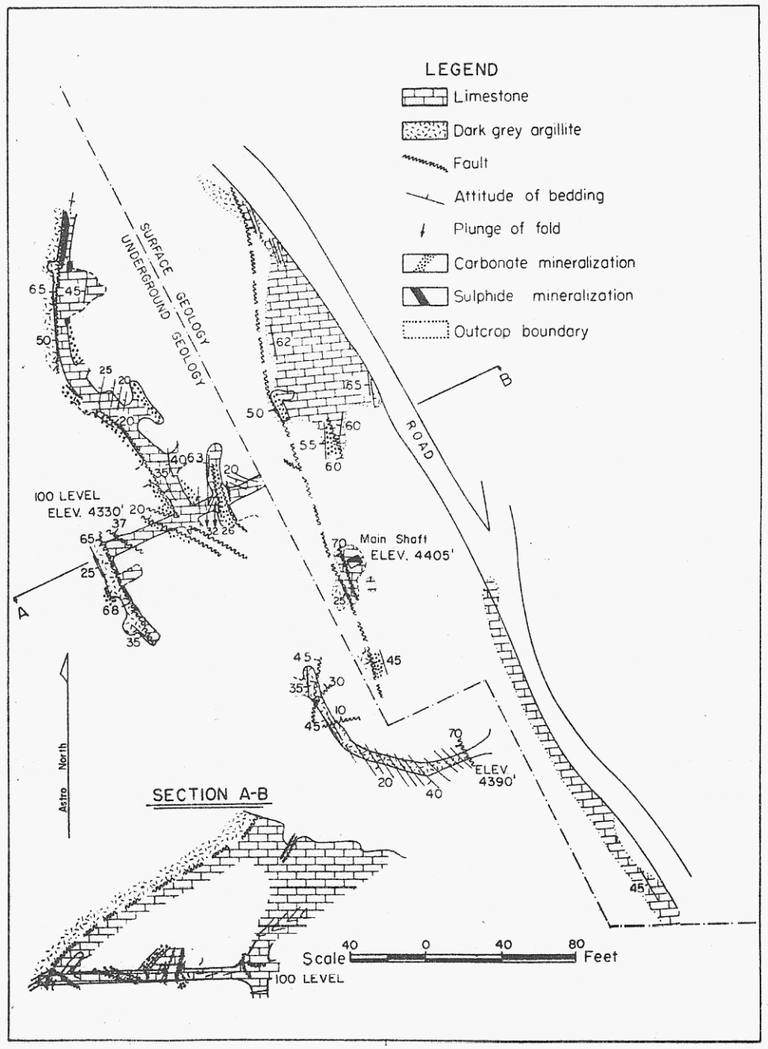


Figure 4a Geology of the Dellie Mine

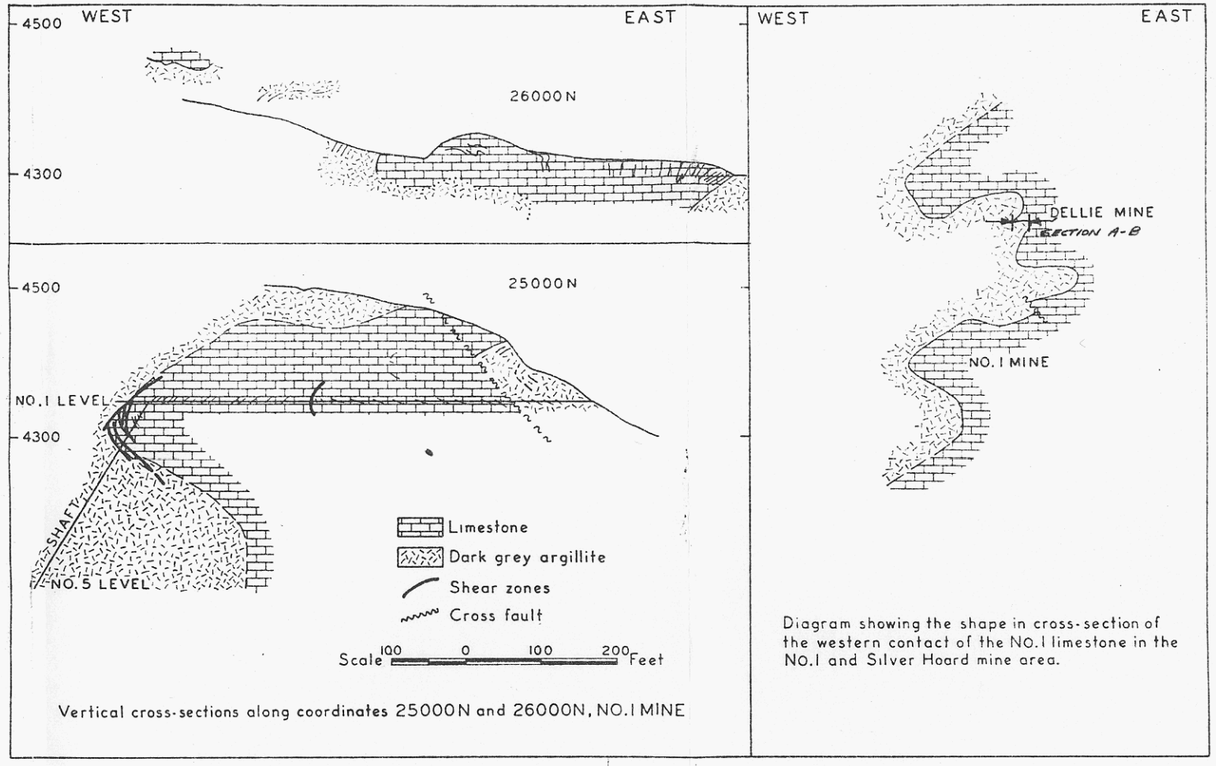


Figure 4b Structural Geology of the No. 1 Mine and Dellie Mine

Taken from Fyles, J.T. (1967) "Geology of the Ainsworth-Kaslo Area, British Columbia," B.C. Dept. of Mines Bulletin No. 53.

Rock types west of the shear zone consist of interbedded phyllites, calcareous phyllites, quartzites and marbles.* East of (stratigraphically below) the shear, the rocks are almost exclusively marble.

The phyllites are fine-grained, dark grey to black and commonly contain disseminated pyrite. They occasionally display foliation that is well enough developed to qualify the rocks as chlorite schists (see Appendix I). Unfoliated rocks of this type were called argillites.

The calcite content of the rocks varies considerably and phyllites were observed to grade into marble in several zones. These marbles are medium grey, medium-grained and banded with alternating light and dark layers. The dark layers are probably due to minute graphite grains and vary between 0.1 and 10 mm in thickness. They parallel bedding in other parts of the Ainsworth Camp and so are assumed to do the same on the Dellie Claim.

Quartzites are relatively rare and typically occur in beds of 1 to 2 meters width. They are medium grey, medium-grained and were observed to grade into both marble and phyllite.

The shear zone itself consists of fractured and deformed phyllite and marble with many calcite-filled breccias. These breccias, where mineralized, contain coarse- to fine-grained pyrite, sphalerite and galena with minor fine-grained chalcopyrite and pyrrhotite. Calcite, siderite, graphite and quartz

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*Rock descriptions are based on inspection of hand specimens only.

are the most common gangue minerals, although scattered occurrences of fluorite and talc were noted.

The permeability of the shear zone is usually quite high and evidence of weathering is common.

DRILL PROGRAMME

The drilling took place between Tuesday, October 13, 1981 and Tuesday, November 17, 1981, when work was halted due to snow. Five holes were drilled (see Figure 5) and their azimuths, dips and lengths are given below (see Appendix I).

HOLE	AZIMUTH	DIP	LENGTH (m)
DDH-1	136 degrees	-58 degrees	118.26
DDH-2	078 degrees	-63 degrees	157.27
DDH-3	-	Vertical	84.12
DDH-4	053 degrees	-60 degrees	135.93
DDH-5	018 degrees	-60 degrees	111.55

The most significant intersections of sulphide mineralization were encountered in DDH-2 (see Figure 5). Two separate shear zones were intersected, with assays of 4.2 oz/ton silver over 1.00 meter and 15.6 oz/ton silver over 0.49 meter. The drill was steepened on this set-up in order to hit the zone down-dip from the initial intersections (DDH-3). Mechanical difficulties prevented the completion of this hole.

In all the other holes, the zone was intersected but only minor amounts of sulphide mineralization were encountered.

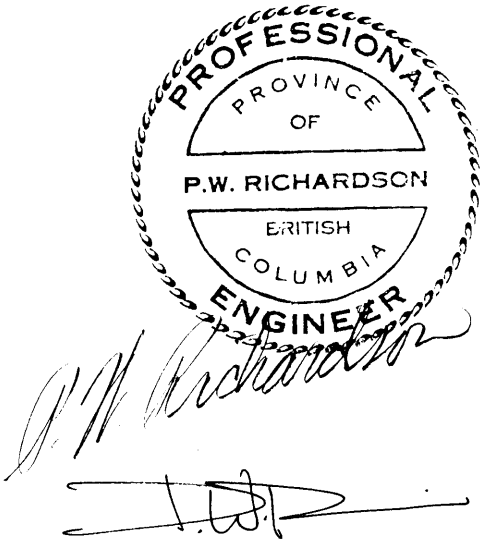
The core was taken to the David Minerals Ltd. mill at Ainsworth where it was logged, split and sampled and is now being stored. The samples were analyzed at the assay lab at the mill.

No ore-grade mineralization was discovered on the property.

CONCLUSIONS

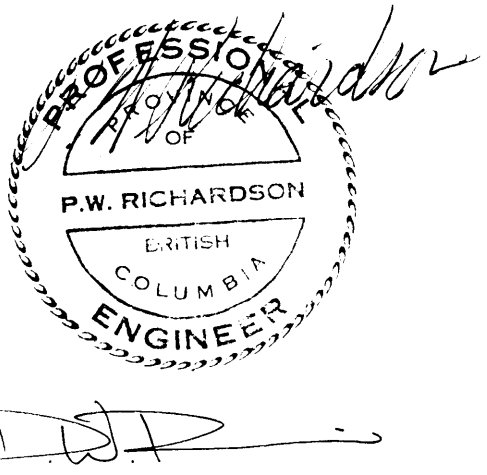
1. No orebodies were encountered during the drilling programme.

2. More work is warranted to fully evaluate the economic potential of the property.



STATEMENT OF COSTS

Assays:		$ 400.00
Drilling Costs: 607.13 metres @ $86.95/metre		52,788.00
Site Preparation:		1,500.00
	Total	$54,688.00



REFERENCES

1. FYLES, J.T. (1967). "Geology of the Ainsworth-Kaslo Area, British Columbia," B.C. Dept. of Mines Bulletin No. 53.

2. HOY, TRYGVE (1980). "Geology of the Riondel Area, Central Kootenay Arc, Southeastern British Columbia," B.C. Dept. of Mines Bulletin No. 73.

3. LITTLE, H.W. (1960). "Nelson Map Area, West Half, British Columbia," G.S.C. Memoir 308.

4. Minister of Mines Annual Reports (1911-1918, 1921-1927, 1948-1950, 1967-1972).

5. RICE, H.M.A. (1944). "Notes on Geology and Mineral Deposits at Ainsworth, British Columbia," G.S.C. Paper 44-13.

6. RENNIE, D.W. and RICHARDSON, P.W. (1981). "Progress Report on the Exploration Programme, Ainsworth Property, British Columbia," Unpublished Report to David Minerals Ltd.

7. SCHOFIELD, S.J. (1920). "Geology and Ore Deposits of the Ainsworth Mining Camp, British Columbia," G.S.C. Memoir 117.

For a complete list of references, see Fyles (1967), pg. 14 and Hoy (1980), pg. 16.

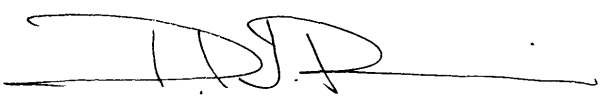
STATEMENT OF AUTHOR'S QUALIFICATIONS

D.W. RENNIE, B.A.Sc.

B.A.Sc. (1979)	From the University of British Columbia in Geological Engineering.
1976	Geophysical field assistant with Cominco Ltd., Vancouver, B.C.
1977	Geological field assistant with Utah Mines Ltd., Vancouver, B.C.
1978	Geological field assistant with St. Joseph Explorations Ltd., Kamloops, B.C.
1979 to Present	Geologist with David Minerals Ltd., Vancouver, B.C.

I have practised my profession continuously since graduation.

I have no interest in the Dellie Property, either direct or indirect, nor do I expect to obtain any interest in the future.



STATEMENT OF AUTHOR'S QUALIFICATIONS

P. W. Richardson, Ph.D., P.Eng.

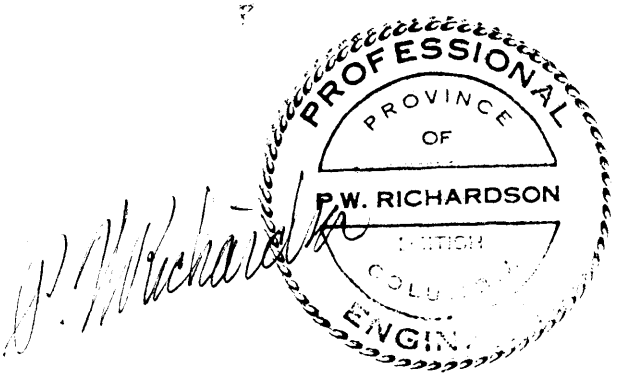
B.A. Sc. (1949) M.A. Sc. (1950) from the University of British Columbia in Geological Engineering.

Ph.D. (1955) from Massachusetts Institute of Technology in Economic Geology and Geochemistry.

1950 - 52:	Mine Geologist at Sullivan Mine, B.C.
1955 - 66:	Exploration Geologist with Dome Exploration (Canada) Limited, Toronto.
1966 - 68:	Exploration Geologist with Amax Exploration Limited Vancouver.
1968 - 78:	Vancouver Manager for Newconex Canadian Exploration Ltd.
1978 - Jan.31,1981:	Principal of Richardson Geological Consulting Ltd.
Feb. 1,1981 - Present:	Vice-President, Exploration, David Minerals Ltd.

I have directly carried out or supervised diamond drill programmes every year from 1949 to the present time.

I have reviewed the accompanying report by D. W. Rennie and consider it to be a good compilation of pertinent data.



APPENDIX I

DIAMOND DRILL LOGS

DIAMOND DRILL RECORD

LOCATION: AINSWORTH

AZIMUTH: 136°

DIP: −58°

LENGTH: 118.26 metres

ELEVATION: 1353.2 metres

HOLE NO: 1

PROPERTY: DELLIE

CLAIM NO:

STARTED: OCT. 13, 1981

CORE SIZE: BQ

DATE LOGGED: OCT. 16, 1981

SECTION:

COMPLETED: OCT. 15, 1981.

DIP TESTS:

LOGGED BY: D. RENNIE

PURPOSE:

METRES from	METRES to	DESCRIPTION
0.00	4 (?)	CASING
4 (?)	9.1 (?)	WEATHERED ZONE (? REC.) - Unweathered and fractured. Contains fragments of medium- to fine-grained medium grey limestone, dark grey phyllite and medium grey fine-grained calcareous phyllite.
9.1 (?)	11.48	PHYLLITE (? REC.) - Dark grey-green phyllite displaying much contortion of foliation planes
11.48	14.30	MARBLE (99% REC.) - Medium- to fine-grained light grey marble. Layering dips 25°. Many narrow calcite veinlets and graphite-filled fractures along which displacements of up to 5 mm are evident.
14.30	15.02	CALCAREOUS ARGILLITE (95% REC) - Massive black argillite containing fine-grained disseminated pyrite and fine-grained calcite.
15.02	15.76	MARBLE (98% REC) - Medium grey, fine-grained marble. Consists of alternating layers of lighter and darker grey material. Layers dip at 40°.
15.76	17.34	CALCAREOUS ARGILLITE (88% REC) - Similar to previously encountered argillite except with

SAMPLE No.	METRES from	METRES to	LENGTH METRES	Au oz /ton	Ag oz/ton	Cu %	Zn %	Pb %	

DAVID MINERALS LTD.

DIAMOND DRILL RECORD

HOLE Nº: 1

METRES from	METRES to	DESCRIPTION	SAMPLE Nº	METRES from	METRES to	LENGTH METRES	Au oz / ton	Ag oz./ ton	Cu %	Zn %		
		a higher proportion of calcite										
17.34	17.58	CALCITE VEIN (99% REC) - Coarse-grained white calcite.										
17.58	22.56	ARGILLITE (95% REC) - Dark grey-green argillite and slatey argillite. Intruded by narrow quartz-calcite veinlets. Six cm. thick breccia zone infilled by calcite and talc and 22.20 m. Fine-grained euhedral pyrite is common.										
22.56	23.16	MARBLE BRECCIA (99% REC) - Brecciated marble infilled with calcite. Rock unit contains many minute pyrite-bearing fractures. Fractures may also contain graphite.										
23.16	24.69	CALCAREOUS ARGILLITE (79% REC) - Bounded on footwall by graphite, calcite-and pyrite-bearing fault zone.										
24.69	28.27	LIMESTONE (98% REC) - Dark grey pyrite-bearing limestone.										
28.27	32.43	ARGILLITE (98% REC) - Dark grey argillite. Pyritiferous in places.										
32.43	46.46	PHYLLITIC ARGILLITE (98% REC ?) - Fine-grained dark grey and green poorly foliated phyllite. Contains zones of complex folding and probable cataclastic "flow" zones. Dip of foliation varies considerably. Most common dip is approx. 25° but goes as high as 90°. Many faults and fractures containing various amounts of calcite, graphite, talc and pyrite.										

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DIAMOND DRILL RECORD

HOLE Nº: 1

METRES from	METRES to	DESCRIPTION	SAMPLE Nº	METRES from	METRES to	LENGTH METRES	Au oz / ton	Ag oz./ ton	Cu %	Zn %		
46.46	48.58	CALCAREOUS QUARTZITE (98% REC) Dark grey, fine-grained quartzite containing varying amounts of calcite.										
48.58	49.30	PHYLLITE (95% REC)										
49.30	49.50	QUARTZITE BRECCIA (98% REC ?) - Brecciated medium grey quartzite infilled with calcite and talc. Contains approx. 10% fine-grained pyrite.										
49.50	49.64	FAULT ZONE (99% REC)										
49.64	49.91	ARGILLACEOUS QUARTZITE (98% REC ?) Dark grey, almost black, quartzite.										
49.91	53.64(?)	QUARTZITE (70% REC) - Extensively fractured medium grey quartzite.										
53.64(?)	54.18(?)	ALTERED QUARTZITE (REC. UNKNOWN) - White to light grey alteration zone containing small amounts of chlorite and sericite. Extensively fractured.										
54.18(?)	57.93(?)	PHYLLITE (95% REC ?) - Dark grey phyllite altered to olive green near calcite veinlets. Fine-grained disseminated pyrite is common. Gouge zones also common indicating extensive shearing. Foliation planes are contorted, especially near faults. Dip of schistosity varies from nearly horizontal near footwall contact, to 60° in the middle of the unit, to horizontal again near the hanging wall.										
57.93	58.31(?)	QUARTZITE CATACLASITE (99% REC) - Sheared quartzite containing minute graphite-bearing fractures.										

DAVID MINERALS LTD.

DIAMOND DRILL RECORD

HOLE Nº: 1

PAGE Nº: 4 of 4

METRES from	METRES to	DESCRIPTION	SAMPLE Nº	METRES from	METRES to	LENGTH METRES	Au oz / ton	Ag oz./ ton	Cu %	Zn %	Pb %
58.31(?)	72.16(?)	MARBLE (95% REC) - Extensively fractured	026103	67.02(?)	68.13	1.11		0.30		0.43	0.10
		and brecciated medium grey, medium-grained	026104	68.13	69.08(?)	0.95		0.20		0.21	0.20
		marble. Older fracturing has been infilled by	026105	69.08(?)	70.40	1.32		Tr		0.10	0.10
		calcite forming fairly competant breccia zones.	026107	71.06	71.93	0.87		Tr		0.10	0.10
		More recent faulting has produced gouge zones									
		and open pores spaces. Weathering has									
		occurred in some of the porous zones. Sulphide									
		mineralization consists of disseminated pyrite									
		and rare occurrences of galena and sphalerite.									
72.16(?)	79.55	INTERBEDDED PHYLLITE AND MARBLE									
		(80% REC?) - Narrow bed of between 0.2									
		and 0.5 metres in thickness									
79.55	118.56	MARBLE (97% REC?)	026108	109.47	110.91	1.44		Tr		0.60	0.10
			026109	116.40	117.97	1.57		Tr		0.60	0.10
118.56		END OF HOLE									

DIAMOND DRILL RECORD

LOCATION: DELLIE

HOLE NO 2

AZIMUTH: 078°

PROPERTY:

DIP: -63° LENGTH: 157.27 metres ELEVATION: CLAIM NO:

STARTED: OCT. 19, 1981 CORE SIZE: BQ DATE LOGGED: OCT 26-27, 1981 SECTION:

COMPLETED: OCT. 22, 1981 DIP TESTS: LOGGED BY: D. RENNIE

PURPOSE:

METRES from	METRES to	DESCRIPTION
0.00	2.13	CASING
2.13	4.72	CALCAREOUS QUARTZITE (97% REC) - Medium grey, fine-grained calcareous quartzite. Dip of bedding = 82°.
4.72	5.28	WHITE MARBLE (99% REC)
5.28	10.69	CALCAREOUS QUARTZITE (99% REC) - Dip of bedding = 78°.
10.69	10.97	CALCITE VEIN (99% REC) -
10.97	15.68	MARBLE (63% REC) - Medium grey fine-grained marble. Broken ground on footwall and hanging wall. Dip of bedding = 24°.
15.68	24.56	SHEAR ZONE (? REC) - Graphite-bearing shear zone. Small quartz and calcite stringers throughout. Also contains fine-to coarse-grained euhedral pyrite. Much contortion of beds and brecciation.
24.56	25.31	MARBLE (99% REC) Dip of bedding = 45°
25.31	29.82	PHYLLITE (97% REC ?) - Grey and grey-green phyllite. Dip of foliation = 30°

SAMPLE No.	METRES from	METRES to	LENGTH METRES	Au oz /ton	Ag oz/ton	Cu %	Zn %	Pb %	

DAVID MINERALS LTD.

DIAMOND DRILL RECORD

HOLE NO: 2

PAGE NO: 2 of 4

METRES from	METRES to	DESCRIPTION	SAMPLE NO	METRES from	METRES to	LENGTH METRES	Au oz / ton	Ag oz./ ton	Cu %	Zn %	Pb %	
29.82	30.56	MARBLE (99 % REC)										
30.56	34.99	CALCAREOUS PHYLLITE (99 % REC) - Dark to medium grey, medium- to fine-grained phyllite and phyllitic limestone. Calcite content varies considerably. Hanging wall contact is sheared.										
34.99	38.40	MARBLE (98 % REC) - Light and dark grey banded marble. Bands range in width from 0.1 to 5 mm and dip 35°. Rock is porous in places. Phyllite layers up to 23 cm thick are present.										
38.40	40.07	PHYLLITE (99 % REC) - 8 cm breccia zone at the footwall.										
40.07	40.81	MARBLE (99 % REC) - Grades to phyllite										
40.81	43.52	CALCAREOUS PHYLLITE (? REC)										
43.52	44.68	MARBLE (99 % REC) - Dip of bedding = 0°										
44.68	54.53	CALCAREOUS PHYLLITE (98% REC ?) - Fairly high grade phyllite grading to low grade chlorite schist in sections. Dip of foliation = 5°										
54.53	57.92	BRECCIA ZONE (99 % REC) - Brecciated and sheared quartzite. Contains coarse- to medium-grained galena and sphalerite, fine-grained pyrite and minor fine-grained chalcopyrite and pyrrhotite. Grain size of sulphides diminishes with depth.	026110	54.53	55.53	1.00		3.8		2.1	0.12	
			026111	55.53	56.53	1.00		1.0		0.60	0.10	
			026112	56.53	57.60	1.07		1.6				
57.92	62.70	MINERALIZED CALCAREOUS PHYLLITE AND MARBLE (97% REC?) - Sulphide mineralization continues sporadically until 61.02 metres	026113	60.99	62.04	1.05		3.0		1.23	0.59	
			026114	62.04	63.04	1.00		1.2		1.02	0.10	
			026115	63.04	64.04	1.00		4.2		11.82	3.06	

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DIAMOND DRILL RECORD

HOLE No: 2

PAGE No: 3 of 4

METRES from	METRES to	DESCRIPTION	SAMPLE No	METRES from	METRES to	LENGTH METRES	Au oz / ton	Ag oz./ ton	Cu %	Zn %		
		where both grade and grain size increase.	026116	64.04	65.04	1.00		0.6	2.3			
			026117	65.04	66.04	1.00		1.8				
62.70	65.99	BRECCIA (95% REC) - Breccia zone containing up to 5-7% combined galena and sphalerite. Gangue minerals include calcite, flourite, talc										
65.99	71.01	QUARTZITIC MARBLE (? REC) - Extensive fracturing and numerous limonite-bearing pore spaces. Dip of bedding = 40°.										
71.01	71.41	CALCITE VEIN (99% REC) -										
71.41	75.02	BRECCIA ZONE (95% REC) - Marble breccia. Many pore spaces and weathered zones.										
75.02	76.91	MARBLE (95% REC)										
76.91	79.23	CALCAREOUS PHYLLITE (99% REC) - Rich in pyrite. Bounded on footwall by 0.08 metre thick gouge zone										
79.23	84.39	MARBLE (99% REC) -										
84.39	88.92	PHYLLITE (95% REC ?) -										
88.92	97.65	MARBLE (99% REC) -										
97.65	98.75	MINERALIZED ZONE (99% REC) - Coarse-to medium-grained disseminated galena and sphalerite. Host rock consists of fractured marble surrounding a 34 cm. thick calcite vein. Faults form the upper and lower boundaries of this vein. Also contains fine-grained chalcopyrite.	026118	97.65	98.75	1.10		0.6				

DAVID MINERALS LTD.

DIAMOND DRILL RECORD

HOLE No: 2

METRES from	METRES to	DESCRIPTION	SAMPLE No	METRES from	METRES to	LENGTH METRES	Au oz / ton	Ag oz./ ton	Cu %	Zn %	Pb %
98.75	99.06	MARBLE (99% REC) -									
99.06	105.56	CHLORITE SCHIST (95% REC?) - Black chlorite schist showing signs of severe deformation and shearing. Calcite infilled breccias are common. Contains feldspar porphyroblasts in some sections.	026122	103.96	104.93	0.97					
			026121	104.93	106.02	1.09		0.8			
105.56	106.51	MARBLE (99% REC) - Mineralized with coarse- to fine-grained galena, sphalerite and pyrite.	026119	106.02	106.51	0.49		15.6			
			026123	106.51	107.10	0.59		1.0			
106.51	108.40	INTERBEDDED PHYLLITE, CALCAREOUS PHYLLITE AND ARGILLACEOUS MARBLE (95% REC) - Dark grey to black calcareous phyllite and argillaceous limestone.									
108.40	115.37	PHYLLITE (97% REC?) -									
115.37	116.61	MARBLE (97% REC?) -									
116.61	123.39	PHYLLITE (97% REC)									
123.39	126.23	MARBLE (99% REC) - Dip of bedding = 45°									
126.23	127.06	PHYLLITE (97% REC?) - Dark green, higher grade phyllite. Possibly low-grade schist.									
127.06	157.27	MARBLE (99% REC) - Dip of bedding = 45° Pelitic zones between 132.51 and 133.76 metres and 153.08 and 153.57 metres.									
157.27		END OF HOLE									

DIAMOND DRILL RECORD

LOCATION: AINSWORTH

AZIMUTH: —

HOLE NO 3

PROPERTY: DELLIE

DIP: VERT. LENGTH: 84.12 metres ELEVATION: CLAIM NO:

STARTED: OCT. 22, 1981 CORE SIZE: BQ DATE LOGGED: OCT. 28, 1981 SECTION:

COMPLETED: OCT. 26, 1981 DIP TESTS: LOGGED BY: D. RENNIE

PURPOSE:

METRES from	METRES to	DESCRIPTION	SAMPLE No.	METRES from	METRES to	LENGTH METRES	Au oz /ton	Ag oz/ton	Cu %	Zn %	Pb %	
0.00	3.00	CASING										
3.00	20.65	MARBLE (41% REC) - Extensive fracturing and calcite veining. Narrow phyllite layers (less than 0.5 m thickness). Bounded on footwall by fault.										
20.65	22.61	QUARTZITIC PHYLLITE (99% REC) Dark green, fine-grained, quartz-rich phyllite.										
22.61	29.68	PHYLLITE (97% REC?) Dark grey to dark green phyllite, rich in medium-grained euhedral pyrite. Also contains calcareous zones.										
29.68	30.43	MARBLE (99% REC)										
30.43	45.74	PHYLLITE (97% REC) Thinly laminated dark green phyllite. Bedding dips 30°. At 31.03 metres, the foliation planes become distorted. Sections contain coarse-grained euhedral pyrite. Also present are sections of quartzite and calcareous phyllite.										
45.74	48.88	QUARTZITIC MARBLE (99% REC)										
48.88	60.21	INTERBEDDED PHYLLITE AND QUARTZITIC										

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DIAMOND DRILL RECORD

HOLE Nº: 3

PAGE Nº: 2 of 2

METRES from	METRES to	DESCRIPTION	SAMPLE Nº	METRES from	METRES to	LENGTH METRES	Au oz / ton	Ag oz./ton	Cu %	Zn %		
		MARBLE (95% REC?) Alternating beds of 0.5-1.0 metre thick phyllite, calcareous phyllite and quartzitic marble.										
60.21	61.55	QUARTZITE (99% REC) Thinly laminated medium grey to light grey-green quartzite. Laminations vary between 0.05 and 35 mm in thickness. The dip of bedding = 5°.										
61.55	63.38	PHYLLITE (97% REC?)										
63.38	84.12	MARBLE (99% REC) Phyllite bed between 66.48 and 67.98 metres. Breccia zone between 70.64 and 71.59. This zone contains a 7 cm thick gouge zone. Marble becomes phyllitic in the bottom 9 metres of the hole.										
84.12		END OF HOLE										

DIAMOND DRILL RECORD

LOCATION: AINSWORTH

AZIMUTH: 053°

DIP: -60° LENGTH: 135.93 metres ELEVATION: 1368.0 metres

STARTED: OCT. 27, 1981 CORE SIZE: BQ DATE LOGGED: OCT. 30 - NOV. 5, 1981

COMPLETED: NOV. 3, 1981 DIP TESTS:

PURPOSE:

HOLE NO 4

PROPERTY:

CLAIM NO:

SECTION:

LOGGED BY: D. RENNIE

METRES from	METRES to	DESCRIPTION	SAMPLE No.	METRES from	METRES to	LENGTH METRES	Au oz /ton	Ag oz/ton	Cu %	Zn %	Pb %	
0.00	4.88	CASING										
4.88	13.45	PHYLLITE (60% REC) Badly fractured and weathered. Contains narrow quartzite layers and calcite stringers.										
13.45	14.75	MARBLE (99% REC) - Medium grained, medium grey to light grey marble.										
14.75	17.50	PHYLLITE (97% REC) - Dark grey-green phyllite (low grade chlorite schist ?). Apparent driller error at 66 feet. Footage marker incorrectly labled and should read 56 feet.										
17.50	17.58	MARBLE (99% REC) -										
17.58	47.08	INTERBEDDED CALCAREOUS PHYLLITE AND LIMESTONE (95% REC?) Alternating beds of phyllite and marble. Layers are up to 1 m thick. Several quartz-calcite stringers and small breccia zones.										
47.08	54.99	MARBLE (99% REC) - Light grey thinly laminated medium-grained marble. Bedding dips 50° to 30° (steepening near top of unit).										
54.99	70.32	SHEAR ZONE (95% REC) - Sheared phyllite and	026124	56.55	57.57	1.02		0.02				

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DIAMOND DRILL RECORD

HOLE Nº: 4

PAGE Nº: 2 of 2

METRES from	METRES to	DESCRIPTION	SAMPLE Nº	METRES from	METRES to	LENGTH METRES	Au oz / ton	Ag oz./ton	Cu %	Zn %		
		chlorite schist with narrow layers of marble.	026125	59.08	60.43	1.35		Tr				
		Calcite-filled breccia zones are common as are	026126	60.82	61.91	1.09		Tr				
		gouge zones. Sulphide mineralization is weak	026127	61.91	62.54	0.63		Tr				
		with only minor amounts of fine-grained pyrite	026128	65.83	67.79	1.96		Tr				
		although there are many rust-stained cavities.	026129	67.79	68.47	0.68		Tr				
70.32	135.93	MARBLE (99% REC) Massive light grey medium-grained marble. Numerous coarse-grained calcite veins and reinlets as well as calcite-filled breccias. Also common are minute graphite-bearing fractures.										
135.93		END OF HOLE										

DIAMOND DRILL RECORD

LOCATION: AINSWORTH

HOLE NO 5

AZIMUTH: 018°

PROPERTY: DELLIE

DIP: −60°

LENGTH: 111.55 metres

ELEVATION: 1367 metres

CLAIM NO:

STARTED: NOV. 9, 1981

CORE SIZE: BQ

DATE LOGGED: NOV. 10, 1981

SECTION:

COMPLETED:

DIP TESTS:

LOGGED BY: D. RENNIE

PURPOSE:

METRES from	METRES to	DESCRIPTION	SAMPLE No.	METRES from	METRES to	LENGTH METRES	Au oz /ton	Ag oz/ton	Cu %	Zn %	Pb %
0.00	4.27	CASING									
4.27	35.68	PHYLLITE (42% REC in top 22.5 m, 95% in lower section) - Dark grey-green phyllite and calcareous phyllite.									
35.68	39.29	MARBLE (99% REC) - Medium grey fine-grained marble.									
39.29	45.65	FRACTURED CALCAREOUS PHYLLITE (99% REC?) - Fractured and brecciated phyllite and calcareous phyllite. Breccias are filled by calcite and talc with minor disseminated pyrite.									
45.65	46.72	MARBLE (97% REC)									
46.72	49.44	FAULT ZONE (60% REC) - Zone of brecciation and shearing. Most intensely fractured section is very porous and has undergone weathering.	026131	47.50	48.07(?)	0.57		1.2			
			026132	53.02	54.24	1.22		Tr			
			026133	54.24	56.09	1.85		Tr			
49.44	52.59	CALCAREOUS PHYLLITE (99% REC)									

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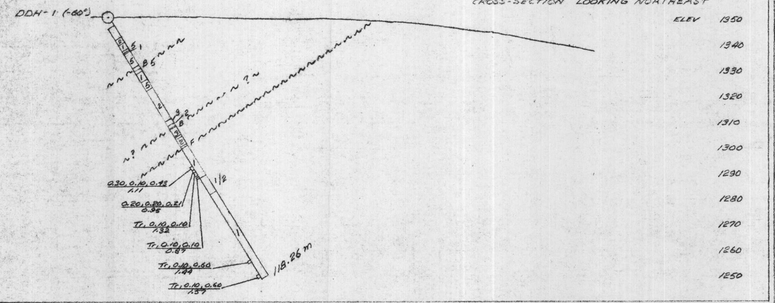
DIAMOND DRILL RECORD

HOLE Nº: 5

PAGE Nº: 2 of 2

METRES from	METRES to	DESCRIPTION	SAMPLE Nº	METRES from	METRES to	LENGTH METRES	Au oz / ton	Ag oz./ ton	Cu %	Zn %		
52.59	56.45	FAULT ZONE (97% REC)										
56.45	107.06	MARBLE (99% REC) Much fracturing and infilling by calcite										
107.06	111.55	PHYLLITE (99% REC)										
111.55		END OF HOLE										

CROSS-SECTION LOOKING NORTHEAST



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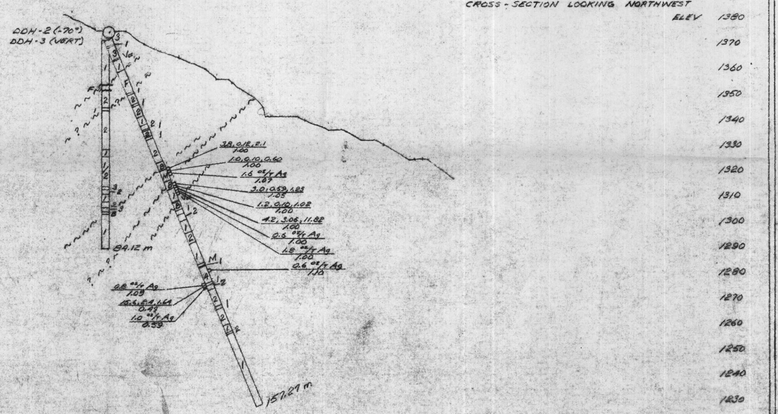

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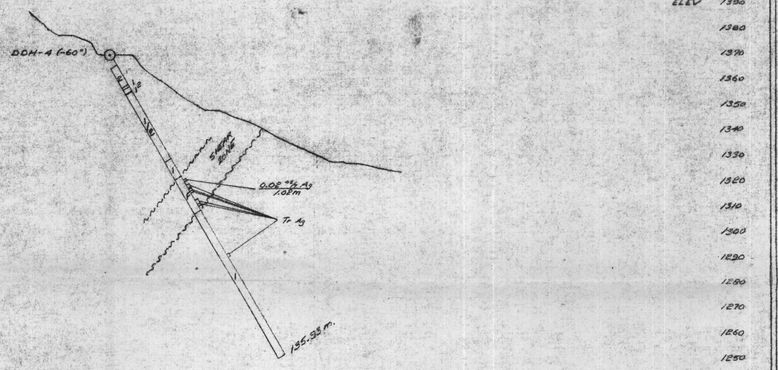

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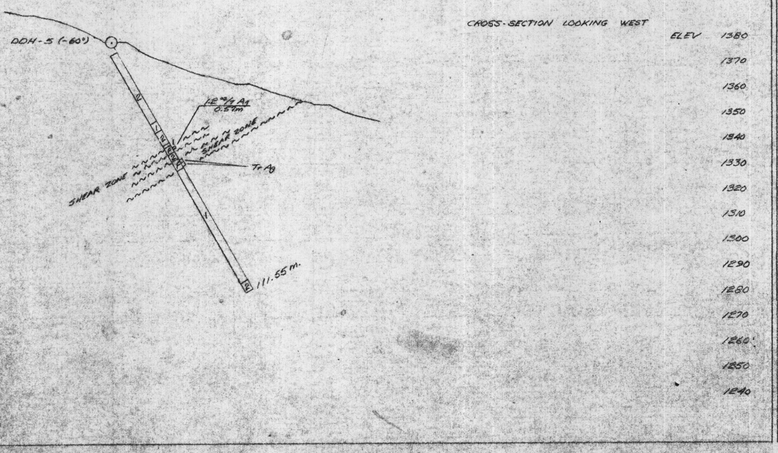

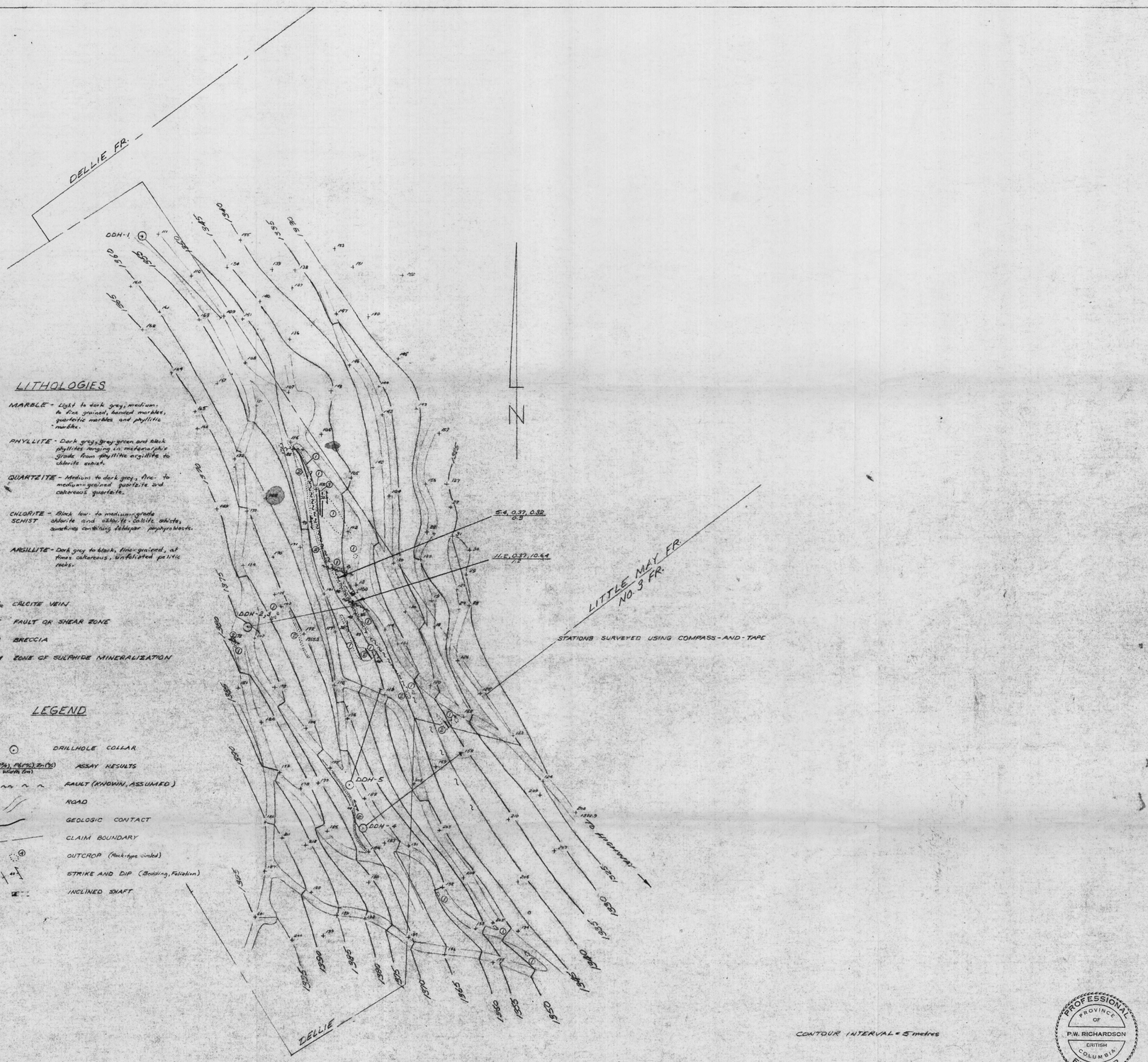

LITHOLOGIES

1. MARBLE - Light to dark grey, medium- to fine-grained, banded marbles, quartzitic marbles and phyllitic marbles.
2. PHYLLITE - Dark grey, grey-green and black phyllites ranging in metamorphic grade from phyllitic argillite to chlorite schist.
3. QUARTZITE - Medium to dark grey, fine- to medium-grained quartzite and calcareous quartzite.
4. CHLORITE SCHIST - Black, low- to medium-grade chlorite and chlorite-calcite schists, sometimes containing feldspar porphyroblasts.
5. ARGILLITE - Dark grey to black, fine-grained, at times calcareous, unfoliated pelitic rocks.

V_{ca} CALCITE VEIN
F FAULT OR SHEAR ZONE
B BRECCIA
M ZONE OF SULPHIDE MINERALIZATION

LEGEND

- DRILLHOLE COLLAR
- Au(oz/t), Pb(%), Zn(%) / Width (m) — ASSAY RESULTS
- FAULT (KNOWN, ASSUMED)
- ROAD
- GEOLOGIC CONTACT
- CLAIM BOUNDARY
- OUTCROP (Rock-type circled)
- STRIKE AND DIP (Bedding, Foliation)
- INCLINED SHAFT

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P.W. RICHARDSON

To accompany assessment report entitled "THE DIAMOND DRILLING PROGRAMME ON THE DELLIE PROPERTY" by D.W. Rennie

DAVID MINERALS LTD.

DELLIE CLAIM
DRILL PLAN AND SECTIONS

SCALE: 1:1000	PROJECT NO:		DWG. BY: DWR
		FIG:	WORK SET: DWR