

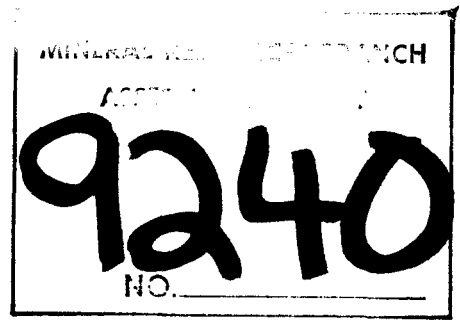
81-A469  
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ASSESSMENT REPORT  
ON THE  
DIAMOND DRILL PROGRAMME  
ON THE  
FOURTH OF JULY PROPERTY

SLOCAN MINING DIVISION, BRITISH COLUMBIA  
NTS 82F/14E AND 82K/3E  
Latitude 50°00'N; Longitude 117°08'W

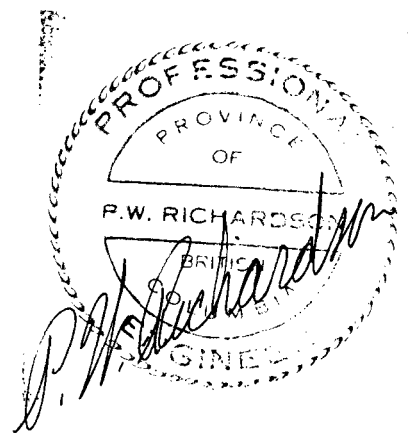
for  
OWNERS: L. GARLAND  
G. MOSSMAN  
K. SARINA

OPERATOR: DAVID MINERALS LTD.



by

Paul W. Richardson, Ph.D., P.Eng.  
David W. Rennie, B.A.Sc.  
and  
Eugene Stary, B.A.Sc.



Vancouver, B.C.

June 30, 1981

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## SUMMARY

Diamond drilling was carried out on the Fourth of July Property from August 9 to August 14, 1980. This drilling was done for David Minerals Ltd. by Olympic Drilling Ltd. A Longyear Super 38 wireline drill was used to drill NX core. Total amount of drilling was 229.26 metres in four drill holes (Figure 4). The drill was moved on to the Property on August 6 and removed on August 15, 1980.

The purpose of the drilling was to examine, below the surface, a new vein partially exposed 40 metres southwest of the Fourth of July Vein and parallel to the latter. A VLF electromagnetic survey showed a strong anomaly associated with this new vein.

No ore grade mineralization was encountered by the drilling.

## INTRODUCTION

In 1979, a VLF-EM survey was performed over the Fourth of July Vein by employees of Tri County Holdings Ltd., and a conductor was located some 40 metres southwest of the original structure. Bulldozer trenching on the anomaly revealed the presence of weathered sulphide mineralization.

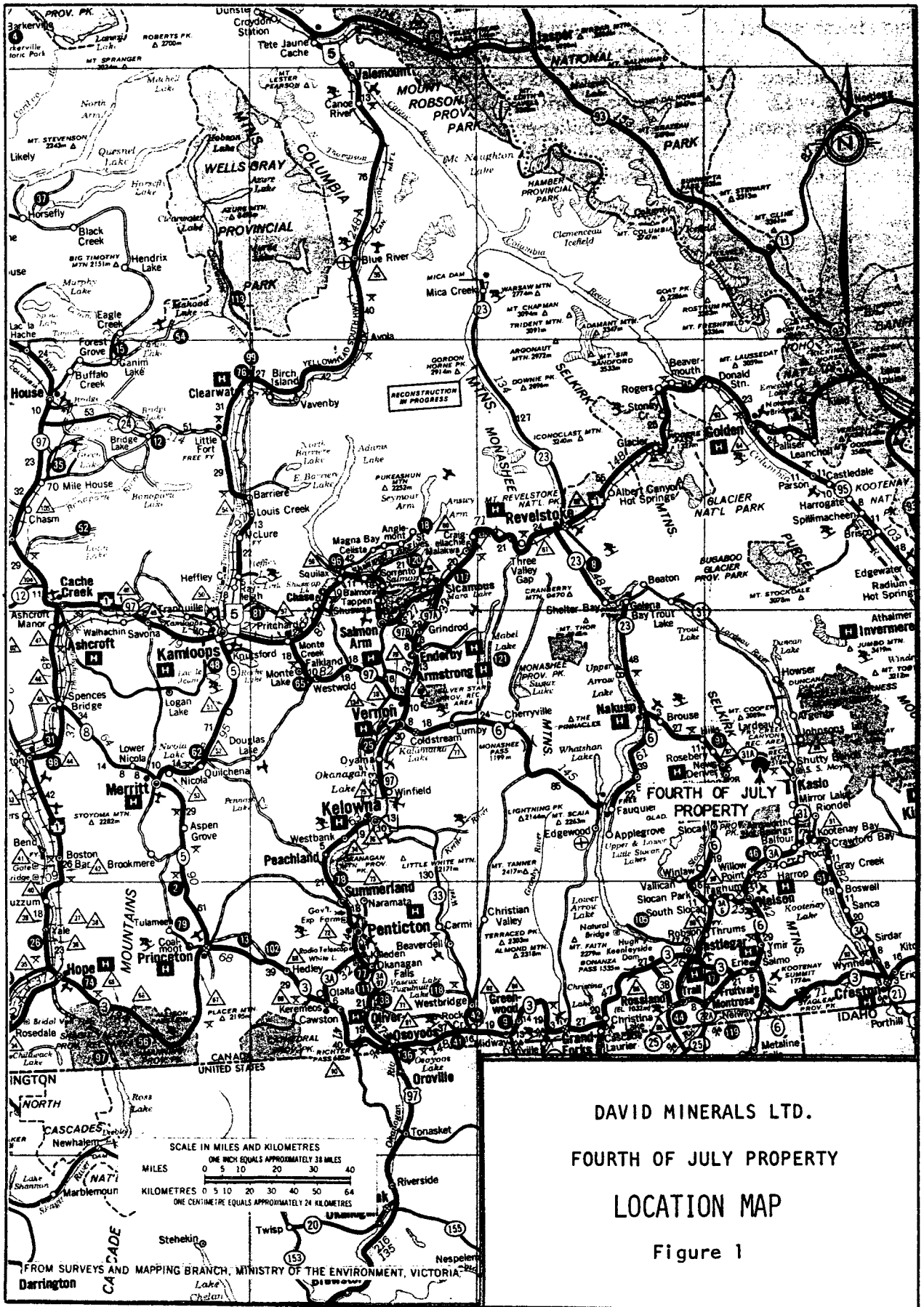
David Minerals Ltd. optioned the claims in 1980 and performed a more detailed VLF-EM survey. This work outlined a strong conductor corresponding with the new showing and with a strike length of at least 120 metres parallel to the old vein.

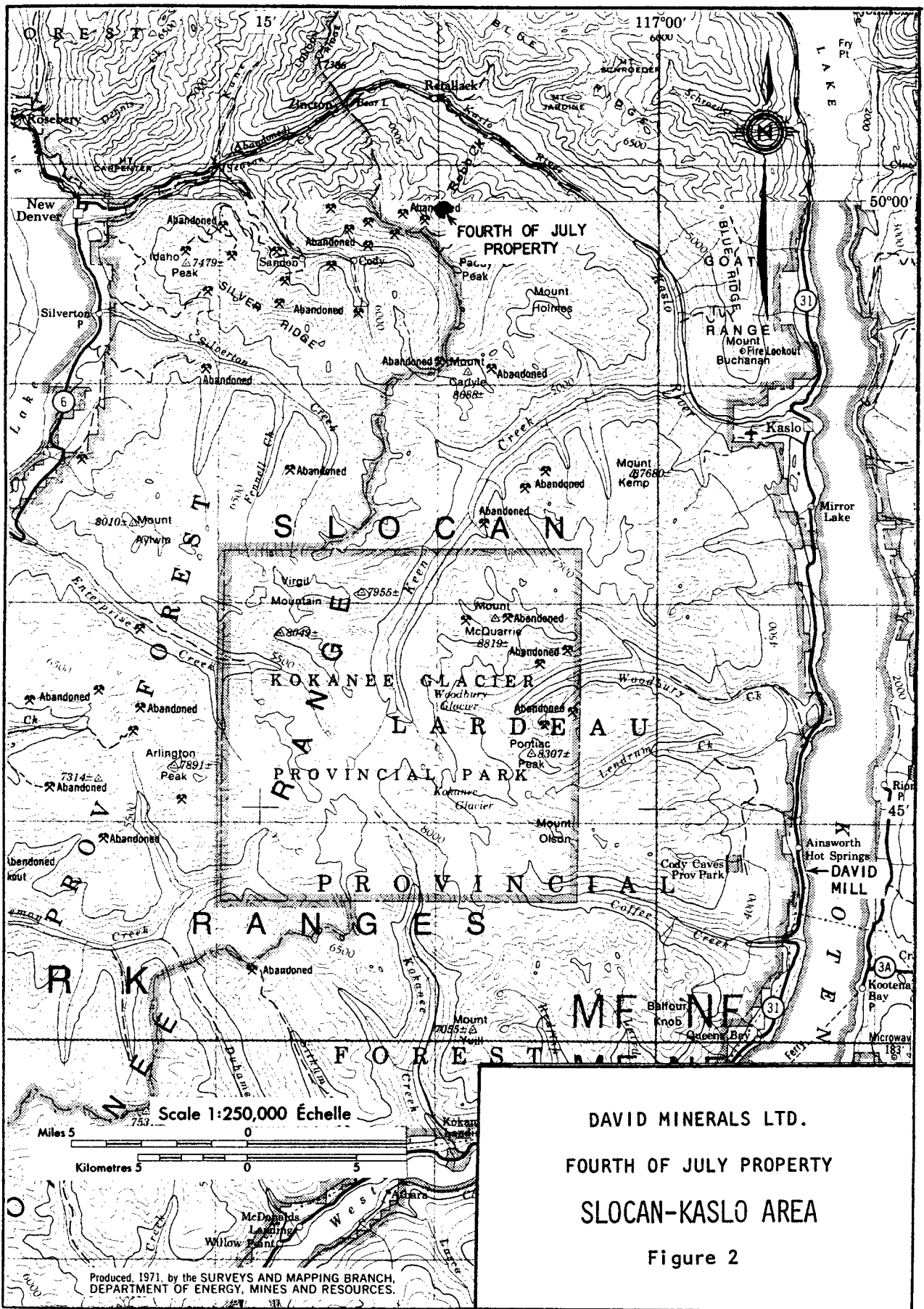
Four holes were drilled to test the anomaly but only minor sulphide mineralization was encountered. The EM conductor is believed to be due to graphite in the sediments underlying the claims.

### LOCATION AND ACCESS

The Fourth of July Property is in the Slocan Mining Division at latitude 50°00'N, longitude 117°08'W on NTS Sheets 82F/14E and 82K/3E (Figure 1). It lies midway between Kootenay and Slocan Lakes, and is 20 km NW of Kaslo, B.C. (Figure 2). Access to the Property is gained by travelling NW from Kaslo on Highway 31A for 25.7 km, turning south across an old railway bridge and continuing on a 4-wheel drive road which extends 9.6 km up Robb Creek to the Property (Figure 3). Other dirt roads give access to various parts of the Property and to adjacent properties.

The elevation of the showing is approximately 1800 metres.





CLAIMS

The Fourth of July Property consists of three claims staked using the Modified Grid System and eight crown granted mineral claims as follows:

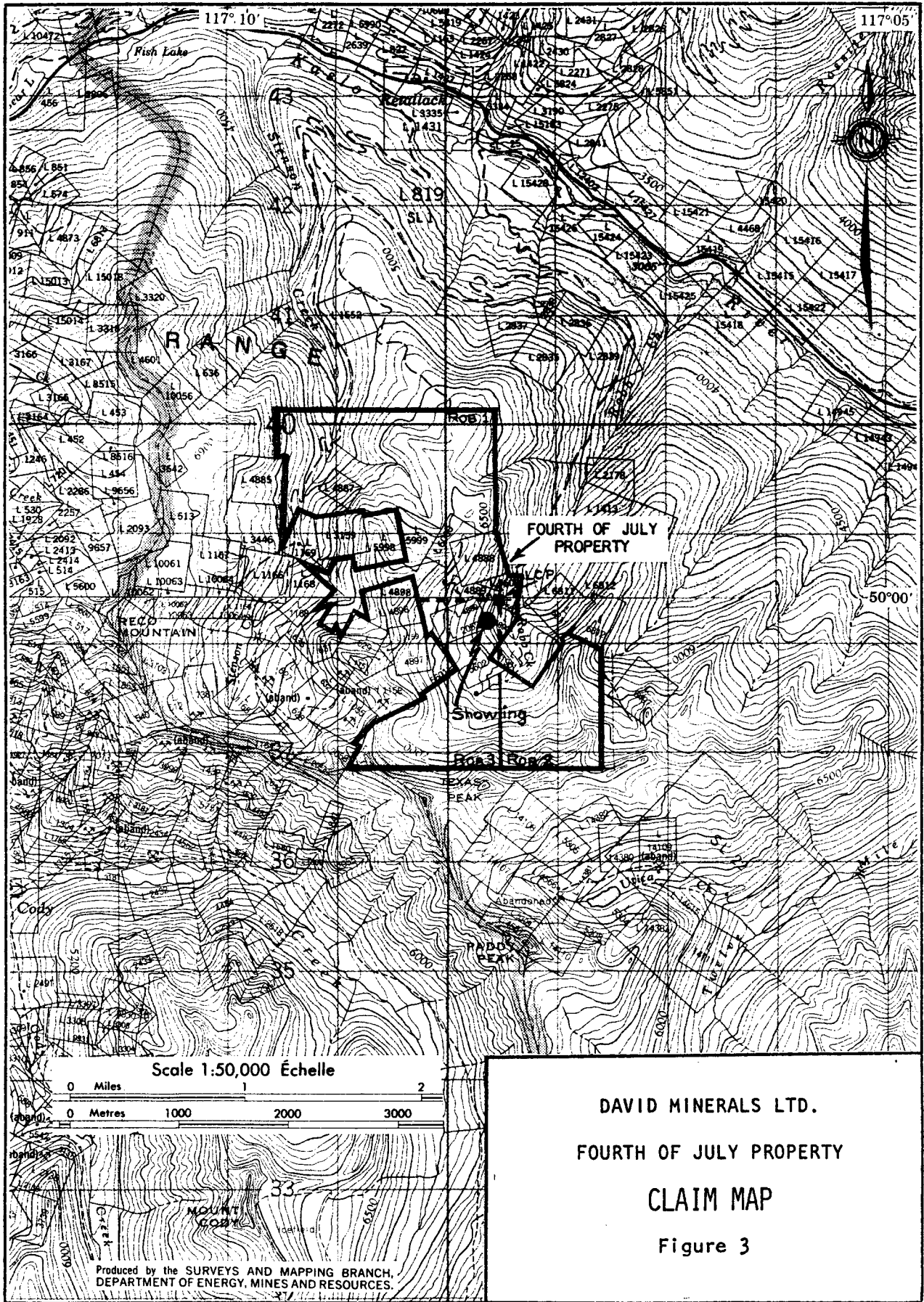
<u>Name</u>	<u>Record No.</u>	<u>No. of Units</u>	<u>Expiry Date</u>
ROB 1	1287(7)	16	5 July 1981
ROB 2	1288(7)	6	5 July 1981
ROB 3	1289(7)	12	5 July 1981

<u>Name</u>	<u>Lot No.</u>
Fourth of July	L 2052
San Antonio	L 5602
Texas	L 4889
Cowboy	L 4888
Toronto	L 6000
Lucky Ed	L 5999
Garland (Fr.)	L 5602
Minnie	L 4890

The above list of staked claims conforms with the records of the Claim Recorder in Vancouver. The records show that the ROB claims are owned by G. Mossman and K. Sarina of Kaslo, B.C. Mr. Leonard N. Garland of Kaslo has optioned the eight crown granted claims to Tri County Holdings Ltd., the President of which is Mr. G. Mossman.

The claims are shown on Figure 3.





## HISTORY

The Fourth of July Property and adjacent properties have been worked intermittently since the late 19th Century, and a few small shipments of high grade silver-lead-zinc ore have been made. On the Fourth of July Property, a crosscut 27 metres long was driven at an elevation of 1780 metres, and the vein was drifted on to the SE and NW (Figure 4). The most recent underground work was in 1969 when drifting, raising and stoping was done from the adit level. Some ore was shipped to the Red Deer Valley Mill at Silverton.

A diamond drill programme was conducted in 1970 (Argy and Wickens, 1970). Three additional diamond drill holes were drilled in late 1970 after the Argy and Wickens drilling was completed. The latter holes are mentioned, but are undescribed in an addendum to the Argy and Wickens report written by Garland. The holes were drilled "from road level approximately 100 feet west of the adit level of the Fourth of July".

During 1979, the property was optioned by Tri County Holdings Ltd., and an attempt was made by prospecting and bulldozer trenching to find the source of a high grade piece of float which weighed several tons and was uphill from the Fourth of July Vein. The Fourth of July Vein was tested with a VLF electromagnetic unit and a conductor was found. In addition, a second and more responsive conductor was found 40 metres SW and parallel to the Fourth of July conductor (Figure 4).

Early in 1980, the parallel conductor was bulldozed, and a new showing was discovered. The writers inspected the showing on June 19, and the Property was optioned by David Minerals Ltd. by letter agreement on July 18, 1980.

## GEOLOGY

The Property is underlain by Triassic Slocan sediments made up of slaty argillites and schists interbedded with limestones which vary from a few metres to over 30 metres in thickness (Cairnes). The sediments strike NW and dip steeply SW. They are intruded by acid dyke rocks and irregular bodies of medium-grained, biotite granodiorite up to several hundred feet wide.

A conjugate system of faulting in the district consists of NW-trending strike faults and NE-trending cross faults.

## ECONOMIC GEOLOGY

The Fourth of July Vein strikes NW. Two small ore bodies have been extracted from it. The ore bodies occurred in the vein where the vein changed strike slightly or where it was intersected by cross faults (Argy and Wickens). The 1970 drilling program indicated that the ore shoots were small but that the silver-lead ratio (oz. Ag/% Pb) is about 2 and that if larger shoots could be found they would be valuable (Argy and Wickens; Snell).

Diamond drill hole #6 of the above programme appears to have intersected the new vein 40 metres NW of the new showing. Recovery in the hole was poor: 1'9" of core was recovered from a total vein intersection of 4'0". The recovered core was "Quartz vein, white, medium crystalline, containing angular fragments of argillite. Few small pyrite crystals" (Argy and Wickens, p. 25).

The new showing was examined by the writers. The outcrop of mineralization in the bottom of the bulldozer trench was only partly exposed, and the trench was partly filled with water. The showing consists of fragments of remnant galena mineralization with heavy, solid gossan between the galena-bearing fragments. A sample sack of specimens of the less altered sulphides was collected by the writers from the bottom of the trench and was assayed with results as follows:

<u>Width</u>	<u>Ag oz/ton</u>	<u>Pb %</u>	<u>Zn %</u>
Specimens only	33.60	15.60	5.15

Subsequently, the showing was cleared of overburden as well as possible, and a continuous chip sample was taken with results as follows:

<u>Width</u>	<u>Ag oz/ton</u>	<u>Pb %</u>	<u>Zn %</u>
1.9 m	3.1	0.14	0.33

Six additional specimens and samples were collected from the surface and underground at the Fourth of July Vein, and one specimen was collected from the nearby Cowboy trench.

DIAMOND DRILL PROGRAMME

Three drill holes at -45 degrees were originally planned to be collared at 15 metre intervals at a distance of 25 metres southwest of the strike of the new vein (Figure 4). The first hole was to intersect the vein directly below the new showing, and the other two on either side of the first hole.

Due to adverse topography, the first drill hole was collared at 21 metres southwest of the showing, and drilled to intersect the vein directly beneath the showing. This drill hole successfully intersected the vein almost directly below the showing. However, the vein proved to be barren of economic mineralization.

Topography made it impossible to set up the drill 15 metres southeast of the first hole as originally planned, so the second drill hole was collared at the same location as the first and aimed to intersect the vein 15 metres southeast of the showing. The vein was located, but again proved to be barren. This hole intersected the sedimentary rocks at a small angle to the bedding and shearing, and had to be abandoned at 38.40 metres as the drill rods were beginning to bind and there was a good possibility of getting them stuck.

The third drill hole was located 15 metres northwest of the first hole as originally planned. This hole was continued through the Fourth of July Vein to check the possible presence of additional veins in the intervening area. None were found.

A fourth drill hole was collared north of the showing, and drilled to the south to cut the new vein where it was intersected by the projection of a shear zone reported in the shaft at the Fourth of July Vein. No mineralization was found in this hole. The hole was terminated at 62.18 metres when drilling became difficult because the sheared sediments were being cut at a small angle to the shearing.

The drill holes cut through sedimentary rocks of the Slocan series and younger aplite dykes. These sedimentary rocks consist of interbedded argillites, limestones and quartzites. Also present are narrow bands of graphitic material which were tested with an ohmmeter and found to be highly conductive. These graphitic bands are undoubtedly the cause of the electromagnetic anomaly.

Short, irregular sections of quartz-calcite vein material interspaced with argillite were found. While these contained minor pyrite and traces of very fine-grained galena and sphalerite, no significant amounts of economic minerals were encountered. Therefore, the downward extension of the new vein was confirmed, but it proved to be barren.

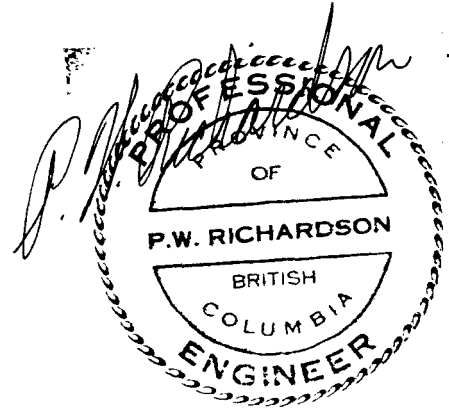
CONCLUSIONS

1. The diamond drilling programme intersected a vein but did not locate any new sulphide mineralization of ore grade.
2. The VLF-EM conductor appears to be due to the presence of graphite in the sediments near the vein.



STATEMENT OF COSTS

DRILLING:	August 9 to August 14, 1980 229.26 metres @ \$109.98/m	\$25,213.50
ENGINEERING:	August 4 to August 31, 1980	<u>11,688.57</u>
	TOTAL	<u><u>\$36,902.07</u></u>





REFERENCES

1. Argy, Glen H. and L.T. Wickens (1970) "Evaluation Report, Diamond Drilling Program, Garland Claims Group", Private Report by Boreal Consultants Ltd. to Matrix Exploration Ltd.
2. B.C. Minister of Mines Reports - 1933 p. 209; 1959 p. 67; 1969 p. 331.
3. Burton, Alex (1980) "Fourth of July Property", Private Report to Great Basins Petroleum Ltd.
4. Cairnes, C.E. (1935) "Description of Properties, Slocan Mining Camp", G.S.C. Memoir 184.
5. Harvey, N. (1979) "Field Inspection - Kaslo Area Properties", Interoffice Memo to Great Basins Petroleum Ltd.
6. McGinn, G.J. (1979) "Field Inspection - Fourth of July and adjoining claims at Kaslo, B.C. (1979)", Interoffice Memo to Great Basins Petroleum Ltd.
7. Richardson, P.W. (1980) "Report on the Fourth of July Property, Slocan Mining Division, British Columbia", Report to David Minerals Ltd.
8. Snell, J.C. (1980) "Report on the Fourth of July Property", Private Report to Tri County Holdings Ltd.
9. Stary, Eugene (1980) "Report on the Diamond Drill Programme, August 1980, Fourth of July Property", Report to David Minerals Ltd.

STATEMENT OF AUTHORS' 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-  
Dec. 31, 1980: Principal of Richardson Geological Consulting Ltd. At all times material to the preparation of this report including the collection of the data as well as the conclusions reached therefrom the writer acted as an independent consultant to David Minerals Ltd.
- Feb.  
~~Jan.~~ 1, 1981-  
Present: Vice President-Exploration of David Minerals Ltd.

I have had an interest in and have practised exploration geochemistry from 1953 to the present time.

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.
- 1977: Geological field assistant with Utah Mines Ltd., Vancouver.
- 1978: Geological field assistant with St. Joseph Explorations Ltd., Kamloops.
- 1979-Present: Geologist with David Minerals Ltd., Vancouver.

E. Stary, B.A.Sc.

B.A.Sc. (1956) from Queen's University.

1956-Present: Exploration geologist for several mining companies.

Member in good standing of the Association of Professional Engineers of the Province of Ontario.

APPENDIX I

DRILL LOGS

LOCATION: 1000 N 979 E

DIAMOND DRILL RECORD

HOLE No  
F80-1

AZIMUTH: 45° E

PROPERTY: Fourth of July

DIP: -45°

LENGTH: 45.72

ELEVATION: 5939.0 M

CLAIM No: Fourth of July C G

STARTED: Aug 9/80

CORE SIZE: NX

DATE LOGGED: Aug 16/80

SECTION: L2052

COMPLETED: Aug 10/80

DIP TESTS: Nil

LOGGED BY: E. STARY

PURPOSE: Test new vein

METRES		DESCRIPTION	SAMPLE No.	METRES		LENGTH METRES	Au oz /ton	Ag oz/ton	Cu %	Zn %		
from	to			from	to							
0	2.74	Overburden										
2.74	7.16	Argillite - Very fine grained, dark grey to black. Banding at 60-80° to core axis. Occasional thin stringers of quartz to 2mm. Scattered pyrite crystals to 1cm.										
7.16	9.69	Aplite dyke. Fine grained, massive, pale greenish white. Minor fine grained disseminated pyrite. Upper and lower edges rusty for 5cm.										
9.69	19.26	Argillite. As above. Fine calcite stringers parallel to banding at 50° to core axis. 14.81-15.03 - Graphitic shear, highly conductive 15.85-18.29 - 0.61m core recovered 18.90 - Core badly sheared.										
19.26	24.62	Aplite - Fine grained, massive, pale grey to white. Upper contact irregular with angular inclusions of argillite to 15mm thick. Occasional light green crystals to 1cm long. Minor very fine grained pyrite.										

Note - Core stored at Ainsworth Mill



LOCATION:

DIAMOND DRILL RECORD

HOLE NO  
F80-2

AZIMUTH:

PROPERTY: Fourth of July

DIP: -45°

LENGTH: 38.40M

ELEVATION: 5939.0M

CLAIM NO: Fourth of July CG

STARTED: Aug 10/80

CORE SIZE: NX

DATE LOGGED: Aug 15/80

SECTION: L 2052

COMPLETED: Aug 11/80

DIP TESTS: Nil

LOGGED BY: E. STARY

PURPOSE: Test new vein

METRES		DESCRIPTION	SAMPLE No.	METRES		LENGTH METRES	Au oz /ton	Ag oz/ton	Pb %	Zn %		
from	to			from	to							
0	4.27	Overburden										
4.27	7.19	Argillite. Very fine grained, dark grey to black. Finely banded at 50° to core axis. Occasional pyrite crystals to 1cm. 4.27 - 5.79. Core badly broken. Core recovery 60%										
7.19	9.05	Aplite. Fine grained, massive, pale greenish grey with occasional light green phenocrysts to 1cm.										
9.05	19.2	Argillite. As above. 13.4. Banding at 40° to core axis 15.5 - 17.4 Core badly sheared.										
19.2	26.33	Aplite. As above										
26.33	30.00	Argillite. As above. Banding at 20° to core axis.										
30.00	35.97	Carbonate-quartz vein, 20% in fractured argillite. Carbonate vuggy with minor quartz crystals in vugs. Traces fine galena crystals. Fine grained sphalerite less than 1%.	041560	29.99	31.51	1.52	0.19	0.11	0.97			
			041561	31.51	33.04	1.53	0.34	0.12	1.12			
			041562	33.04	34.56	1.52	0.06	0.02	0.05			
			041563	34.56	35.97	1.41	0.01	0.01	0.02			

Note - Core stored at Ainsworth Mill





LOCATION:

DIAMOND DRILL RECORD

HOLE NO  
F80-3

AZIMUTH:

PROPERTY: Fourth of July

DIP: -45°

LENGTH: 82.90

ELEVATION:

CLAIM NO: Fourth of July CG  
L2052

STARTED: Aug 12/80

CORE SIZE: NX

DATE LOGGED: Aug 15/80

SECTION:

COMPLETED: Aug 13/80

DIP TESTS: Nil

LOGGED BY: E. STARY

PURPOSE: Test new vein

METRES		DESCRIPTION	SAMPLE No.	METRES		LENGTH METRES	Au oz /ton	Ag oz/ton	<del>Pb</del> Pb%	Zn %		
from	to			from	to							
0	3.66	Overburden										
3.66	9.14	Argillite. Very fine grained, dark grey to black. Banding at 40° to core axis. Short limy sections. 4.26 - Aplite stringer 5cm wide.		Note	Core stored at Ainsworth Mill							
9.14	12.50	Aplite. Medium grained, pale grey, massive. Upper contact sharp, irregular. Occasional light greenish phenocrysts to 2cm.										
12.50	20.73	Argillite, As above. Pyrite crystals and blebs to 1cm, 1-2%. Fine wavy carbonate bands to 2mm. 16.46 - 17.07 - Aplite. Sheared, white very fine grained. Soft, soapy feel. 18.84 - 18.95 - Aplite, as above. 19.20 - Banding at 60° to core axis. 19.50 - 20.73. Badly sheared at 5-10° to core axis.										
20.73	22.43	Quartz-carbonate vein. Vein material 30-40% with remainder badly sheared argillite. Shearing almost parallel to core axis. Vein material contains very fine disseminate galena, less than 1%	041564	20.73	22.43	1.70		0.02	0.07	0.02		





LOCATION:

## DIAMOND DRILL RECORD

HOLE NO

F80-4

AZIMUTH:

PROPERTY: Fourth of July

DIP: -45°

LENGTH: 62.18M

ELEVATION:

CLAIM NO: Fourth of July CG

STARTED: Aug 13/80

CORE SIZE: NX

DATE LOGGED: Aug 15/80

SECTION:

L2052

COMPLETED: Aug 14/80

DIP TESTS: NIL

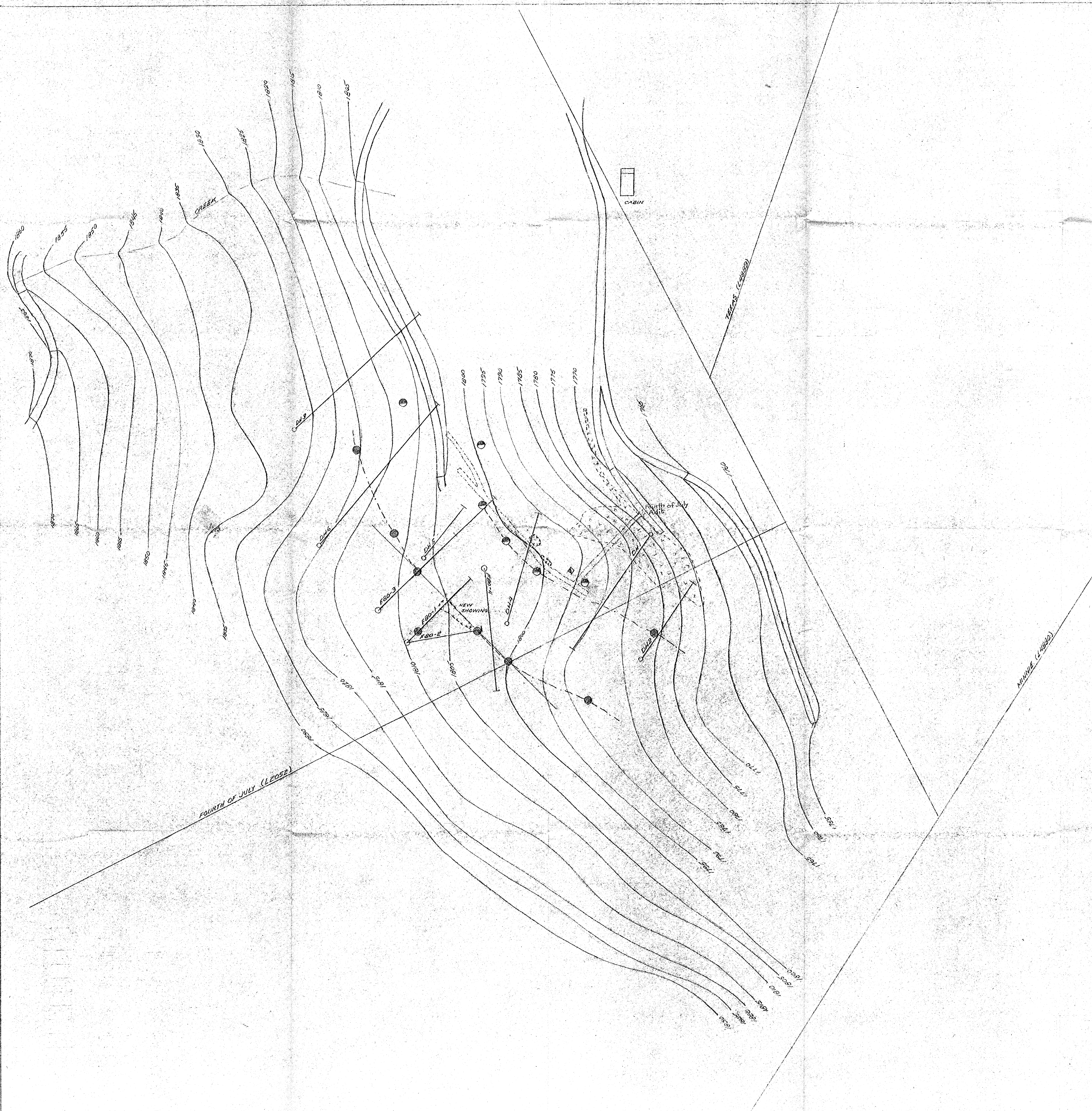
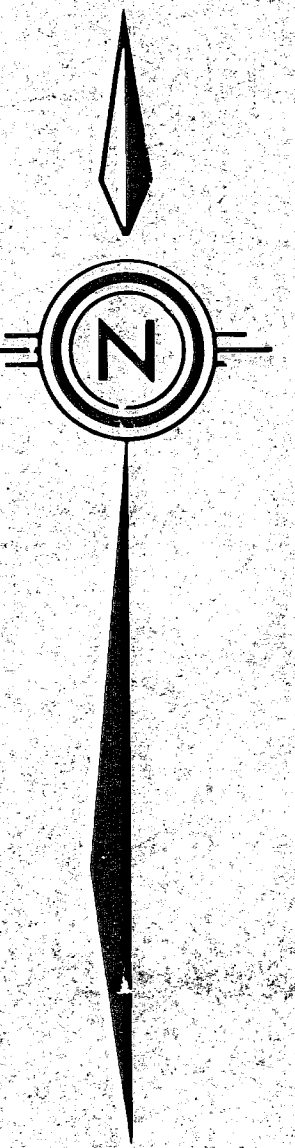
LOGGED BY: E. STARY

PURPOSE: To check intersection of shear zone and new vein

METRES		DESCRIPTION	SAMPLE No.	METRES		LENGTH METRES	Au oz /ton	Ag oz/ton	<del>Sn</del> Pb %	Zn %		
from	to			from	to							
0	3.65	Overburden										
3.65	14.81	Argillite. Dark grey to black. Faintly mottled appearance on core surface. Faint banding at 25° to core axis. Occasional pyrite crystals to 5mm. 10.82-14.08 Thin rusty seams at 25° to core axis.										
14.81	19.50	Aplite. Light greenish grey, fine grained massive with less than 1% finely disseminated pyrite.										
19.50	26.03	Limestone. Dark grey, very fine grained. Finely banded at 20° to core axis.										
26.03	31.24	Argillite. Dark grey to black. Pyrite 1% in crystals and blebs to 5mm. 26.27 - Quartz-carbonate veinlet 0.24m wide.										
31.24	37.18	Limestone - As above.										
		35.23 - 35.97 - Ground core. Recovered as black, fine grained sand. Vein?	041565	35.23	35.97	0.74		0.03	0.01	0.04		

Note - Core stored at Ainsworth Mill

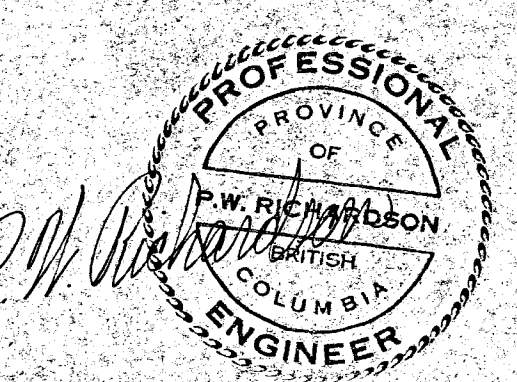




LEGEND

- F80-1 Drill hole - 1980
- OH-1 Drill hole - previous
- ⊙ VLF Anomaly
- ▭ Outcrop
- ▭ Adit
- ▭ Shaft
- ▭ Trench
- ▭ Road

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
**9240**  
NO.



TO ACCOMPANY ASSESSMENT REPORT  
ENTITLED "DIAMOND DRILL PROGRAMME  
ON THE FOURTH OF JULY PROPERTY" BY  
P.W. RICHARDSON, ET AL.

DAVID MINERALS LTD  
FOURTH OF JULY PROJECT

DRILL PLAN

SCALE	INT. SURFACE & GRADE	DWG NO.	R/S NO.
1:500			4
DATE/REVISIONS	DWG BY	CHK BY	
AUG., 1980	P. STANLEY	P. STANLEY	