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MICROFILMED

Progress reports on exploration on E.L. 43/70,
Arthur River, Tasmania during 1972-1973

P.B. Nye

1973

Mineral Holdings Aust. Pty Ltd

First report on Cann Creek magnesite
prospect

P.B. Nye

January, 1973

Mineral Holdings Aust. Pty Ltd

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E.L. 43/70

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FIRST REPORT ON CANN CREEK MAGNESITE PROSPECT

INTRODUCTION

In March 1972, Mr. K. Pinner was prospecting for any northern extension of the Cann Creek Silica prospect, and found outcrops of carbonate rocks in the Cann Creek about 35 chains northerly from the quarry on the Silica prospect.

Mr. Pinner submitted several specimens of the rocks. The specimens were mainly light-coloured but some were dark grey. Some of the specimens contained small irregular areas or narrow veins of a white mineral like calcite. In general, the rocks resembled light-coloured and grey limestones, but some appeared to be magnesite.

Subsequently, spot samples were taken by Mr. Pinner from the two largest outcrops on the northern side of Cann Creek. The results of the analyses are shown in the attached table. Sample No.1 contained 45.8% of MgO which correspond to a magnesite content of 95.6%. Sample No.2 contained 23.6% of MgO which corresponds to 49.3 of MgCO₃, and the material is magnesite containing approximately an equal amount of dolomite and/or calcite.

Later, a representative sample (No.3) was taken across 45 to 50 feet of the same outcrop as No.1. It contained 45.9% of MgO, and confirmed that that outcrop was magnesite.

Mr. Pinner searched later for other outcrops of magnesite and found some. He mapped all the magnesite outcrops, slate outcrops and the basalt. The resulting map is shown on Plate 1, a copy of which is attached. In addition, three additional samples (4, 5 and 6) were taken and analysed.

STRUCTURE

The magnesite outcrops are in Cann Creek and on the northern side of that creek. The slates occur mainly in the southern side of Cann Creek, and also to a limited extent to the west and east of the magnesite. The zone containing the magnesite could have a general south-easterly strike. It is more likely, however, that the strike of the zone has a considerable curve in it and the general structure is that of a nose of a fold. The strikes of the slates and the magnesite tend to support a folded structure. However, the strikes recorded for the slates may be of the cleavage and not of the bedding. Further investigations of the strikes and dips will be made before a final decision is made regarding the structure.

It is to be noted, however, that any northern extension or extensions of the zone containing the magnesite will ultimately pass beneath the Tertiary basalt situated to the north of Cann Creek.

GRADE

Six samples have been taken and the results of the analyses of them are given in Table No.1 (attached). The analyses of the six samples prove that the best grade magnesite is in the outcrops in the western part of the zone of outcrops. The largest outcrop has contents of 45.8 and 45.9 per cent of MgO in samples 1 and 3. The smaller outcrop to the west has an MgO content of 45.7 per cent (sample 4).

The small outcrops included in sample 5 will be re-examined and any appearing to consist of better grade magnesite will be

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1st Report
Cann Creek Mag. Pros.

TABLE 1.

Reg.No.	Sample No.	CaO %	MgO %	SiO ₂ %	Fe ₂ O ₃ %	Ignition Loss %	FeO %
721654	No.1		45.8c			49.8	
721656	No.2		23.6c			42.1	
723896	No.3	2.2	45.9	0.90			0.08
	No.4	1.5	45.7	1.1	0.20		
	No.5	2.1	40.8	7.9	0.05		
	No.6	6.8	39.6	1.6	0.15		

c. MgO calculated from determination of Mg.

- No.1 Sample. Spot sample. From same outcrop as No.3.
- No.2 Sample Spot sample from "limestone" overlying magnesite.
- No.3 Sample Representative sample taken across 45 to 50 feet of outcrop that appeared to be the best looking magnesite. From same outcrop as No.1.
- No.4 Sample Representative sample across 20 feet of westernmost outcrop.
- No.5 Sample From several small outcrops in Cann Creek.
- No.6 Sample Representative sample across 20 feet of easternmost outcrop.

FOR POSITIONS OF SAMPLES SEE ATTACHED PLAN.

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sampled separately. Any outcrops appearing to be siliceous will not be sampled.

Mr. Pinner reports that the largest outcrop in the eastern part of the zone consists of "limestone" overlying magnesite. Sample 2 was taken from the "limestone", and the analyses suggest that it is magnesite mixed with dolomite or calcite or both. The underlying magnesite will be sampled.

CONCLUSIONS

The investigations to date have resulted in the finding of 15 outcrops in a zone with a length of about 400 feet. Most of the outcrops are small, and the two largest are about 50 feet long. The zone is curved and may ultimately be proved to be the nose of a fold.

Six samples have been taken, and the analyses of them have proved that the better grade material is in the western part of the zone. The largest outcrop contains 45.8 to 45.9 per cent of MgO. The smaller outcrop to the west contains 45.7 per cent of MgO.

Investigations will be continued, and further prospecting and sampling will be conducted.

P. B. Nye
P. B. Nye.

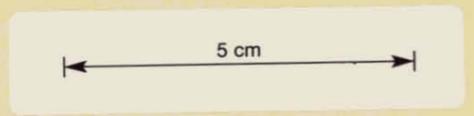
Melbourne 18th January 1973.

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CANN CREEK MAGNESITE PROSPECT.

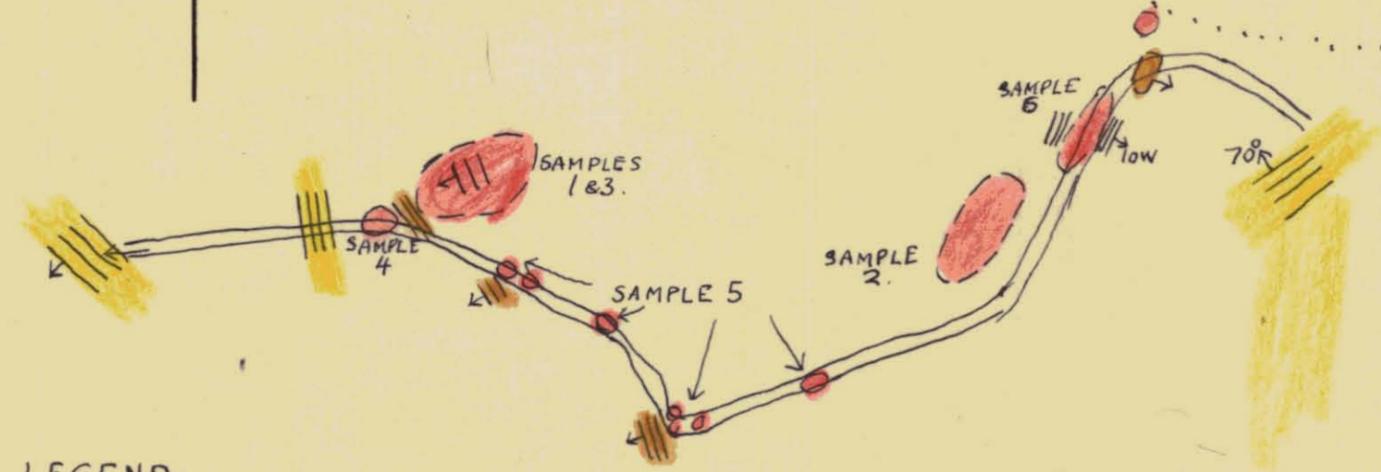
SCALE.
1 INCH TO 1 CHAIN.



M.N.



LINE TO WHICH LOOSE PIECES OF BASALT DESCEND



LEGEND.

- PRECAMBRIAN MICA SCHIST,
- " TALCOSE SCHIST
- MAGNESITE
- STRIKE & DIP.

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Report on Nye Silica prospect E.L. 43/70

P.B. Nye

May, 1972

Mineral Holdings Aust. Pty Ltd

E.L. 43/70

INTRODUCTION

In september, 1971, the writer in company with Directors N.M. Thomas and P. Freeman and Prospector K. Pinner inspected a reported mineral occurrence on the Cann River in the Meunna district.

After the inspection, the writers attention was drawn to some of the dark pebbles in the sand and gravel put on the logging road. The pebbles were found to be intensely siliceous. On enquiring, it was learnt that the road metal came from a quarry some 2 to 3 miles distant; and in the floor of the quarry the intensely silicified formation was found, and examined and sampled.

LOCATION AND ACCESS

The quarry is situated on the western side of a logging road south and south-west of Meunna (see plate 1) Access is gained from the Preolenna-Myulla road. About 6.1 miles west from Preolenna, a logging road runs in a general south-westerly direction to the quarry in 3-5 miles.

GEOLOGY (see Plates 1 and 2)

The country along the logging track consists of Pre-Cambrian schists and quartzites. They are near the contact of the Keith Beds and the overlying Neasey Quartzites and Slates. It was at first thought that they might be in the base of the Neasey Quartzites and Slates, but as the quartzites are interbedded with schists, it now appears that they represent the top of the Keith Beds.

The schists are greyish mica schists and the quartzites represent metamorphosed fine to medium grained sandstones.

Tertiary basalt is present near the junction of the Myalla road and the logging track and also the south-west of the quarry.

The general strike of the schists and quartzites is north-easterly.

SILICA DEPOSIT

The quarry was opened up to obtain sand and quartzite detritus for the logging road. The quarry is about 250 feet long and 50 feet wide and has a general direction slightly west of south. The depth ranges up to a maximum of 12 to 15 feet.

In the northern part of the quarry, only sand and quartzite detritus were exposed. At the site of the present No.1 Trench, a small area of an intensely silicified, white formation was exposed.

Near the centre of the quarry a deeper hole had been bull-dozed and a heap pushed up to the north. In the hole, an intensely silicified bluish formation was exposed, and the heap consisted of pieces of the same formation.

Near the southern end of the quarry, white, weathered quartzites were exposed, mainly on the eastern wall. Another hole had been bull-dozed and a heap pushed up to the north. The weathered quartzites appeared as friable fine to medium grained sandstones with stratification or banding indicated faintly.

On the surface east of the quarry, boulders and pieces of quartzite are present, and some may represent outcrops. Some of the pieces are bluish like the bluish formation in the quarry.

South-east of the quarry, boulders of quartzite crop out over a width of about 280 feet and have been partly exposed in No.3 trench.

Outcrops are scarce north of the quarry entrance but quartzites crop out about 450 feet to the north and over a narrow width.

Not far south of No.3 Trench, a swampy flat is present and there are no rock outcrops although a few loose pieces of quartzite are found.

About 65 chains south-west from the quarry white quartzites are exposed in road cuttings in both parts of the road where it has a sharp bend and crop out in the low hill between the two parts of the road. The length of outcrop is about 5 chains.

SCHISTS ARE EXPOSED AS FOLLOWS

- a) between the northern most quartzite outcrop and the logging road to the east, about 900 feet north of the quarry entrance.
- b) On a branch logging track west of the quarry entrance
- c) in the road cuttings in the road east of the quarry
- d) at intervals in the cuttings along the road between the quarry and the exposures in the sharp bend in the road 65 chains to the south-west

Less schistose rocks (probably siltstones) crop out in the cuttings along the western part of the road at the sharp bend.

The quartzites therefore appear to be present as a bed or beds between schists and in places siltstones.

At the northern end, the quartzite belt could be as narrow as 25 to 50 feet. In the quarry and nearby the belt ranges in width from 150 feet to 225 feet. At the sharp road bend 65 chains to the south-west the width could be 150 to 250 feet.

The total known length of the belt described above is 78 chains, but of course there are large lengths in which there are no outcrops and in which quartzites are not known to be present. The belt continues about 36 chains south-west of the sharp road bend, but appears to be getting narrower according to the prospector's reports.

The above descriptions of the belt refer to quartzites and largely quartzites in outcrop and in which they would be weathered. The intensely silicified formation has been exposed only in the quarry but it almost certainly represents the unweathered portions of some of the quartzites. As will be seen below where analyses of samples are considered, the weathered quartzites have high silica percentages similar to those of the unweathered formation.

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As far as the unweathered silicified formation is concerned, it has been exposed to date over a length of only 75 feet and a width of 25 to 35 feet. Testing, and particularly drilling will be necessary to prove its length and width.

TESTING OF THE QUARTZITES AND THE SILICIFIED FORMATION
(see Plates 1 and 2)

i SAMPLING

The quartzites and the formation have been sampled as follows:-

- No. 2. From small exposure at site of No. 1 trench
White silicified.
- 1. From small exposure in hole near No. 2 trench. Bluish and silicified
- 3. Road cutting at sharp bend in road at south-western end. White and weathered quartzite.
- 4. Pieces picked from heap north of No. 2 trench
Bluish and silicified.
- 5. Pieces picked from heap in southern end of quarry. White and weathered quartzite
- 6. Pieces picked from banded or stratified quartzite in quarry east of No. 5 sample. White and weathered quartzite.
- 8. Pieces picked from heap as in No. 4 sample.
- 9. ~~Whiteish~~ silicified formation in No. 1 trench
Across 16 feet
- 10. White and reddish silicified formation in No. 1
Across 9 feet.
- 11. Bluish and silicified formation in No. 2 trench
Across 22 feet
- 12. White and weathered quartzite in No. 3 trench
Across 35 feet
- 13. As for No. 12 Across 22 feet
- 14. As for No. 11 & 12. Across 8 feet.

ie) ASSAYING

All the above samples were sent to the Chief Chemist and Metallurgist, Mines department Laboratory, Launceston. Of the above, results have been received for No. 1 to 6 and 8 and 9. The results for the others should be available shortly.

The results were

Reg No.	Sample No.	SiO ₂ %	Al ₂ O ₃ %	Fe ₂ O ₃ %	TiO ₂ %
712981	1	99.2	0.23	0.02	0.02
712982	2	99.7	0.10	0.02	0.05
714614	3	99.0	0.19	0.02	0.11
721656	4	99.4	0.09	0.37	0.01
721657	5	99.7	0.11	0.01	0.01
721658	6	99.8			
721659	8	99.3			

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CONCLUSIONS

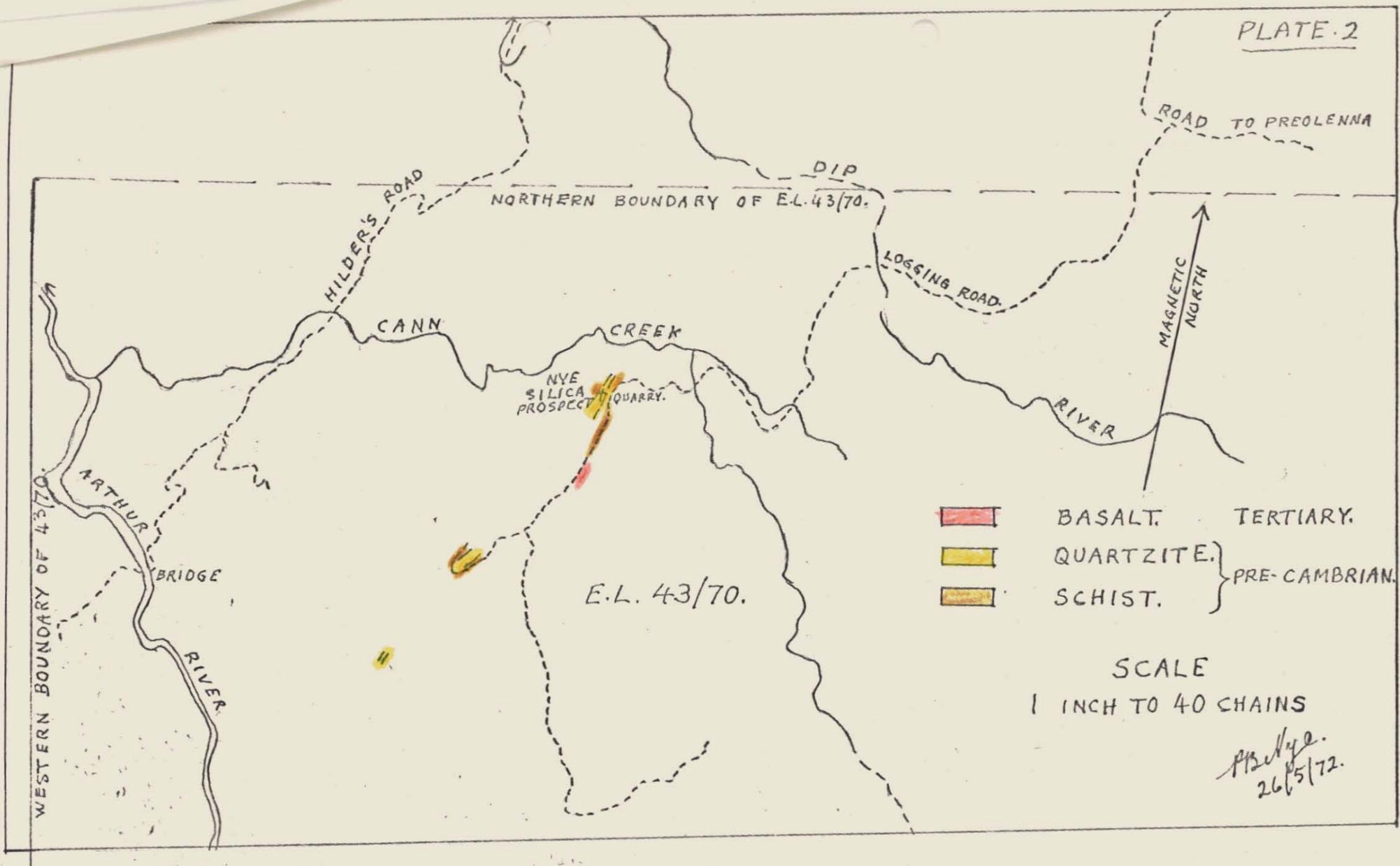
The silicified formation forms part at least of a band of quartzite. The formation had been exposed in two places in the floor of the quarry and was further exposed by two bull-dozed trenches across the exposures. Quartzite crops out to the south and east, and to a less extent to the north of the quarry. A trench was bull-dozed across the quartzites south of the quarry.

Fourteen samples have been taken, but so far the results of analysis of only nine of the samples have been received. The silica contents of the samples from the quarry ranged from 99.2 to 99.8 per cent.

Further testing is justified. There is little scope for further bull-dozing, except at the southern end (at the sharp road bend). Testing should therefore be by drilling to determine the width, length, depth and grade of the formation.

P. B. Nye
P. B. NYE.

MELBOURNE
25th May, 1972.



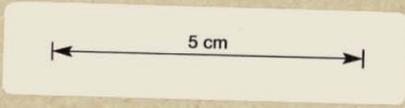
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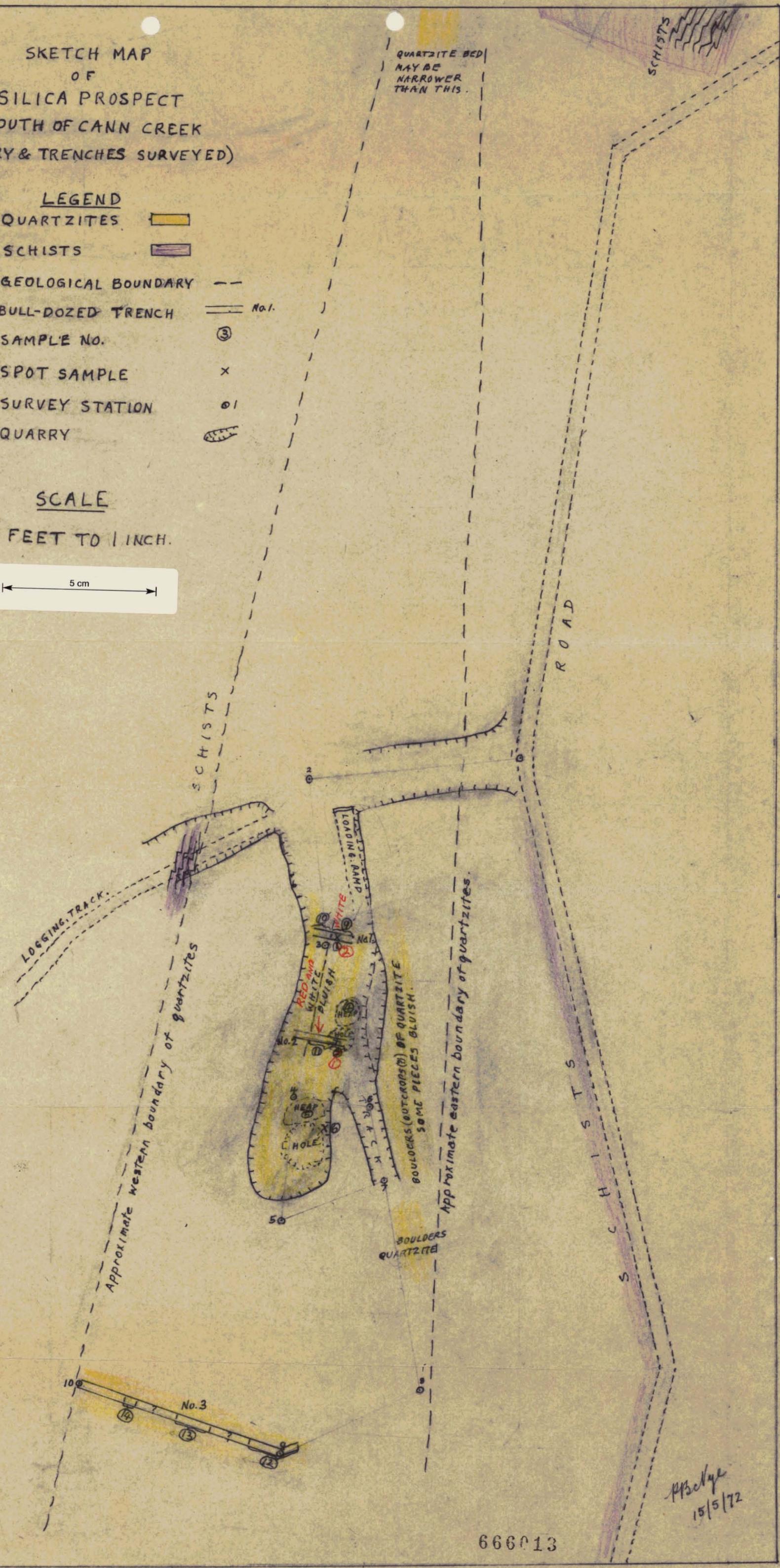
SKETCH MAP OF SILICA PROSPECT SOUTH OF CANN CREEK (QUARRY & TRENCHES SURVEYED)

- LEGEND**
- QUARTZITES 
 - SCHISTS 
 - GEOLOGICAL BOUNDARY 
 - BULL-DOZED TRENCH  No. 1.
 - SAMPLE NO. 
 - SPOT SAMPLE 
 - SURVEY STATION 
 - QUARRY 

SCALE
50 FEET TO 1 INCH.



MAGNETIC NORTH.



013

SECOND REPORT ON NYE SILICA PROSPECT NEAR
CANN CREEK, E.L.43/70, NORTH-WESTERN TASMANIA

INTRODUCTION

The first Report on this prospect was prepared on 25th May and was accompanied by two plates.

Details of representative samples No 9 to 14 were given in the report, and their positions shown on Plate 1. The results of analyses of these samples had not, however, been received by 25th May. The results have now been received and are given below.

RESULTS OF ANALYSES OF SAMPLES No9 to 14

Reg No	Sample No	SiO ₂ %	Al ₂ O ₃ %	Fe ₂ O ₃ %	TiO ₂ %
722122	9	99.7		0.11	0.08
722123	10	99.4		0.12	0.01
722124	11	99.6		0.09	0.01
722125	12	99.6		0.04	0.04
722126	13	99.5		0.03	0.05
722127	14	99.4		0.09	0.17

GROUPING OF TYPES OF SILICA SAMPLED AND ANALYSED, AND ANALYSES OF EACH SAMPLE.

The details of the analyses of the different types of silica sampled and analysed are given in the attached table.

The details about position, width, etc were given in the first Report.

CONCLUSIONS

The figures in the attached table show that the order of quality of the materials (as determined by the silica contents) is as follows:-

- | | | |
|-----|--|-----------------------------|
| 1. | Weathered quartzite at, or near, surface in southern end of quarry | SiO ₂ %
99.75 |
| 2. | White silicified material in floor of quarry | 99.7 |
| 3. | Weathered quartzite at surface south of quarry | 99.45 |
| 4A. | Bluish silicified material in floor of quarry | 99.4 |
| 4B. | Red and white silicified material in floor of quarry | 99.4 |

The weathered quartzites in southern end of the quarry and the white silicified material in the floor of the quarry, therefore, have the highest silica content.

P. B. Nye
P.B. NYE

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Type of Silica	Sample No.	SiO ₂ %	Fe ₂ O ₃ %	Al ₂ O ₃ %	TiO ₂ %
Bluish Silicified (in quarry floor)	1	99.2	0.02	0.23	0.02
	4	99.4	0.37	0.09	0.01
	11	99.6	0.09	-	0.01
	Average	99.4	0.16	0.16	0.013
White silicified (in quarry floor)	2	99.7	0.02	0.10	0.05
	9	99.7	0.11	-	0.03
	Average	99.7	0.065	0.10	0.04
Red and White silicified (in quarry)	10	99.4	0.12	-	0.01
Weathered quartzite at, or near, surface (in quarry)	5	99.7	0.11	0.01	0.01
	6	99.8	-	-	-
	Average	99.75	0.11	0.01	0.01
Weathered quartzite at surface (outside quarry)	8	99.3	-	-	-
	12	99.6	0.04	-	0.04
	13	99.5	0.03	-	0.05
	14	99.4	0.09	-	0.17
	Average	99.45	0.05	-	0.086
All samples Average		99.525	0.106	0.10	0.039

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First report on Lyons River and adjacent
magnesite prospects

P.B. Nye

September, 1972

Mineral Holdings Aust. Pty Ltd

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FIRST REPORT ON LYONS RIVER AND
ADJACENT MAGNESITE PROSPECTS.

INTRODUCTION

The writer has not visited these prospects, and the information in this report about them is based on reports and statements made by Mr. K. Pinner, who is in charge of prospecting for Mineral Holdings Australia Pty. Ltd. A small amount of additional information has been obtained from reports and statements by geologists of other companies who have visited the locality to inspect the magnesite prospects or an adjacent copper prospect.

The prospects include

- i) Lyons River outcrops
- ii) B.A. Creek outcrop
- iii) Outcrop 45 chains to north-east of B.A. Creek outcrop

The first two outcrops were found by Prospectors K. Pinner and C. Goninon late in March, 1972.

LOCATION AND ACCESS

The Lyons River and B.A. Creek outcrops are situated about 4.5 miles by airline south-west from Farquhar's bridge over the Arthur River. This bridge is about 25 miles by road from Burnie and Wynyard in north-western Tasmania. Burnie is the main port for that region.

The above two outcrops are situated about 1.25 miles west from a bull-dozed track connected with Farquhar's bridge. A route for a track from the above track was selected after reconnaissance trips by the prospectors. The track was bull-dozed in June to the B.A. Creek outcrop. Shortly afterwards, the rainy season started, and little use could be made of the track. Further, the rising streams covered parts of the two outcrops.

THE PROSPECTS.

The Lyons River outcrop consists of two outcrops in the bed of the River, immediately to the south of its junction with B.A. Creek. The river runs east of north, and Prospector Pinner described the outcrops and the position of his first two samples as follows:-

NORTH-WESTERN OR DOWNSTREAM SIDE OF OUTCROP

- 70 feet of magnesite - not sampled
- 50 feet without outcrops (50 feet - sample No.2
- 80 feet of magnesite (30 feet - sample No.1

SOUTH - EASTERN OR UPSTREAM SIDE OF OUTCROP

Pinner considered the strike to be north-easterly and that the outcrop in B.A. Creek was generally on the line of strike of the upstream outcrop of magnesite in the Lyons River.

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Mr. T.M. Porter, a C.R.A.E. geologist who was investigating an adjacent copper prospect, but visited the magnesite in the river reported that the magnesite occurred in discontinuous lenses along strike (this included the outcrop in B.A. Creek) and that in the creek the average thickness was nearly 40 feet.

An I.C.I. Geologist who visited the Prospects when the outcrops in the river were largely covered by water, apparently did not agree that the outcrops were lenses along a north-easterly strike.

Pinner has not been able to locate any outcrops in the south-western side of the river, or to the north-east of B.A. Creek (except at a distance of 45 chains)

For the present, the strike will be regarded as north-easterly, but that the outcrops will be either discontinuous lenses along the strike or arranged an echelon. If the latter is correct, the B.A. Outcrop would be on the line of strike of the upstream outcrop in the River.

The B.A. Creek outcrop is situated on the creek, and about 5 chains up the creek from its junction with Lyons River.

The third outcrop (magnesite-dolomite) is situated about 45 chains to the north-east of the B.A. Creek outcrop, with no exposures having so far been found between them. This outcrop would be situated generally on the north-easterly line of strike from the B.A. Creek outcrop.

Dimensions

Accurate information about the widths and lengths of the outcrops is not available as no surveys have as yet been made.

For the Lyons River outcrop, the information supplied by Pinner suggests that the true widths of each of the two outcrops would be about 50 feet, but no figures are available for the lengths.

Porter gave the width of magnesite as nearly 40 feet (12 metres) but apparently restricted it to exposures in B.A. Creek.

For the B.A. Creek outcrop, Pinner gives the dimensions as 25 to 30 feet in a N.W - S.E direction and at least 10 feet at right angles thereto.

Pinner describes the outcrop 45 chains to the north-east as being along a hillside and 80 feet in a N.W-S.E. direction and 30 feet at right angles thereto.

The position of the Lyons River and B.A. outcrops suggest that magnesite occurs at intervals within a length of 5 to 8 chains.

SAMPLING

- | | |
|--|------------------------------|
| No. 1 Across 30 feet of the 80-foot
(or upstream) outcrop | chips at 2-foot
intervals |
| No. 2 Across 50 feet of the above outcrop | ditto |
| No. 4 Across 60 feet of the " " | Representative |
| No. 6 Across 20 feet " " " " | ditto |
| (the best looking magnesite | |

No. 7 From narrow veins of clear crystalline mineral in above outcrop small picked pieces

No. 8 Brownish material from margins of above outcrop.

B.A. CREEK OUTCROP

No. 3 From outcrop spot sample
No. 9 Across 25 feet of the outcrop Representative

OUTCROP 45 CHAINS NORTH-EAST OF B.A. CREEK

No. 5 From outcrop A few pieces

ANALYSES OF SAMPLES

Registered No	Sample No	MgO %	CaO %	SiO ₂ %	Fe ₂ O ₃ %	? %	Al ₂ O ₃ %
<u>LYONS RIVER</u>							
721821	1	44.8	0.38	2.8	2.9		
721822	2	46.3	1.3	0.36	1.7		
722115	4	45.6	1.2	1.6	0.86	50.5	0.05
723244	6	47.5					
723245	7	45.3	0.4				
723246	8	44.0	0.2		6.1		
<u>B.A. CREEK</u>							
721823	3	46.8	0.52				
723247	9	45.7					
<u>45 CHAINS TO.NE</u>							
722486	5	29.6	18.2				

The above analyses were made in the Department of Mines Laboratory, Launceston.

MINERALOGY AND GRADE

LYONS RIVER OUTCROPS

Specimens of the magnesite are pure white and the magnesite is very fine-grained, and could represent high grade material

Samples 1 and 2 gave magnesia contents of 44.8 and 46.3 percent respectively. Sample 4 was a representative one across 60 feet and gave a magnesium content of 45.6 percent. Sample No. 6 was a representative sample across 20 feet of the best looking magnesite and contained 47.5 percent magnesia; this content indicates nearly pure magnesite. ? MgO.

Specimens of the white magnesite contained small lenses and short and narrow veins of a transparent, crystalline mineral. It was thought that it might be dolomite, but sample 7 proved that it was crystalline magnesite.

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Some specimens were light brownish in colour and appeared to be iron-stained. Specimen 8 was taken to check this possibility and contained 6.1 percent ferric oxide. Iron was present also in Samples 1 and 2 to the extent of 2.9 and 1.7 percent respectively of ferric oxide but could have contained a disproportionate amount of the brownish material from the margins of the outcrop. Representative sample 4 contained a lower content (0.86 percent) of ferric oxide. In sample 8, the impurities would be 0.63 percent, and iron would represent probably only a part of that amount.

Silica was determined only in samples 1, 2 and 4. In No. 1 it was much in excess of the lime, and in No. 2 was much less than the lime, but in No. 4 it was slightly in excess of the lime.

B.A. CREEK

Spot sample 5 contained 46.8 percent of magnesia and representative sample 9 contained 45.7 percent of magnesia, which is similar to that of representative sample 4 from the Lyons River.

OUTCROP OF 45 CHAINS NORTH-EAST FROM B.A. CREEK

This outcrop has not been systematically sampled. One sample (No. 5) consisted of a few pieces of the material containing the lenses and veins of the translucent mineral. The results of analysis suggests that the material is a mixture of magnesite and dolomite.

P. B. Nye
P. B. NYE

Melbourne
 1st September, 1972.

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E.L. 13/70

To accompany report for October 1972

ARTHUR R. MAGNESITE

TABLE No. 1.

666021

MAIN OUTCROP (Sample Plan Along No. 2 Traverse)

Reg. No.	MgCO ₃ in Magnesite (Calculated) %	(Calculated) Dolomite %	Insoluble %	Total %
703275	75.93	16.78	6.7	99.42
703276	58.97	34.54	2.9	96.41
703277	80.41	11.51	4.9	96.82
703278	88.84	3.62	5.7	98.18
703279	90.10	1.32	7.1	99.13
703280	75.97	8.40	11.3	95.67
703281	82.35	2.30	13.7	98.35
703282	95.69	0.99	3.1	99.75
703283	85.06	2.30	11.8	99.16
703284	89.23	2.30	7.2	98.73
703285	84.35	4.28	12.2	100.83
703286	80.90	5.90	10.7	97.50
703287	72.12	20.99	3.9	97.01
703288	90.93	5.90	1.8	98.63
703289	89.27	7.24	2.0	98.41

TABLE NO. 2.

copy (Main Outcrop)

Section	Hole No. 1 ACID SOLUBLE MAGNESIUM			Hole No. 2					
	Mg% Determined	As MgO%	As MgCO ₃ %	Mg% Determined	As MgO%	As MgCO ₃ %			
0-5)	Not sampled	overburden		0.62	1.03	2.15			
5-10)				13.9	23.2	48.2			
10-15)				14.4	24.0	49.9			
15-20				17.3	28.9	60.0			
20-25	17.3	28.9	60.0	18.6	31.1	64.5			
25-30	21.6	36.1	74.9	18.4	30.7	63.8			
30-35	23.6	39.4	81.8	12.6	21.0	43.7			
35-40	23.5	39.2	81.5	23.5	39.2	81.5			
40-45	23.9	39.9	82.9	15.0	25.1	52.0			
45-50	24.2	40.4	83.9	20.7	34.6	71.8			
50-55	24.6	41.1	85.3	End of Hole					
55-60	22.5	37.6	78.0						
60-67	16.9	28.2	58.6						
65-70	20.0	33.4	69.4						
70-75	17.9	29.9	62.1						
75-80	14.4	24.0	49.9						
Average	21.0	35.1	73.0				17.2	28.6	59.5

Averages exclude contaminated section 0-5

ACID INSOLUBLE MAGNESIUM

0-5		0.44
20-25	1.29	
40-45		0.05

Table 2 data arranged for analysis

666022

TABLE 3.

Best Grade of Magnesite as Revealed by Analysis of Specimens & Samples

Outcrop and Sample No.	MgO %	CaO %	SiO ₂ %	Acid Insol %	Fe ₂ O ₃	Al ₂ O ₃ %	MnO %	Loss on Ignition %	S %	Total %	P %	Reg No.	Descriptive Samples
Victory	47.4	0.35		0.51									11b lump. f. Farquhar 19
No. 1.	46.8	(calculated from results expressed as MgCO ₃)										702098	Spot sample
2.	47.3	"	"	"	"	"	"					702099	" " of " ch.
3.	47.3	"	"	"	"	"	"					702100	" " " 19
4.	47.0	0.34		0.52	{ 0.57 FeO 0.44 0.54	Nil	0.11	51.2	0.005	99.63		720456	Representative samples access 12 feet Representative samples from parcel
5.	44.9												

MgCO₃ Content Corresponding to above MgO Content

MgO	MgCO ₃	
47.4	98.06	MgO reported by Analyst & MgCO ₃ calculated
46.8	97.8	Magnesium carbonate content reported by Analyst & MgO Calculated
47.3	98.9	
47.3	98.9	
47.0	98.05	MgO reported by Analyst & MgCO ₃ calculated.

031

022

TABLE NO.4

LYONS RIVER MAGNESITE
ANALYSES OF SAMPLES

Registered No.	Sample No.	MgO %	CaO %	SiO ₂ %	Fe ₂ O ₃ %	L. onl. %	Al ₂ O ₃ %	FeO %
<u>LYONS RIVER</u> 721821	1	44.8	0.38	2.8	2.9			
721822	2	46.3	1.3	0.36	1.7			
722115	4	45.6	1.2	1.6	0.86	50.5	0.05	
723244	6	47.5		0.25				0.08
723245	7	45.3	0.4					
723246	8	44.0	0.2		6.1			
<u>B.A. Creek</u>								
721823	3	46.8	0.52					
723247	9	45.7						

The samples are described below

SAMPLING

- No. 1 Across 30 feet of the 80 - foot chips at 2-foot intervals
(or upstream outcrop)
- No. 2 Across 50 feet of the above outcrop ditto
- No. 4 Across 60 feet of the " " Representative
- No. 6 Across 20 feet " " ditto
(the best looking magnesite)
- No. 7. From narrow veins of clear crystalline mineral in above outcrop small picked pieces
- No. 8. Brownish material from margins of above outcrop

B.A. Creek Outcrop No.3 FROM OUTCROP SPOT SAMPLE / No.9 Across 25 feet of the outcrop- Representative
(CANN. CK. MAGNESITE)

TABLE NO.5

Registered No. No.	Sample No. No.	MgO %	L. onl. %	CaO %	SiO ₂ %	FeO %	Description of sample
721654	1	45.8	49.8				Pieces at intervals across
721655	2	23.6	42.1				Pieces at intervals.
723896	3	45.9		2.2	0.90	0.08	Representative sample across about 50 feet of same material as sample 1.

Ps. lineo
10/1/01

Al. lineo
10/1/01

023

E. L. 43/70

666024

MINERAL, ROCK OR ASH ANALYSIS REPORT

CANN CK SILICA

To B. Flood
Signed [Signature]

Project No. 5550/500/60
Date 4-10-1972

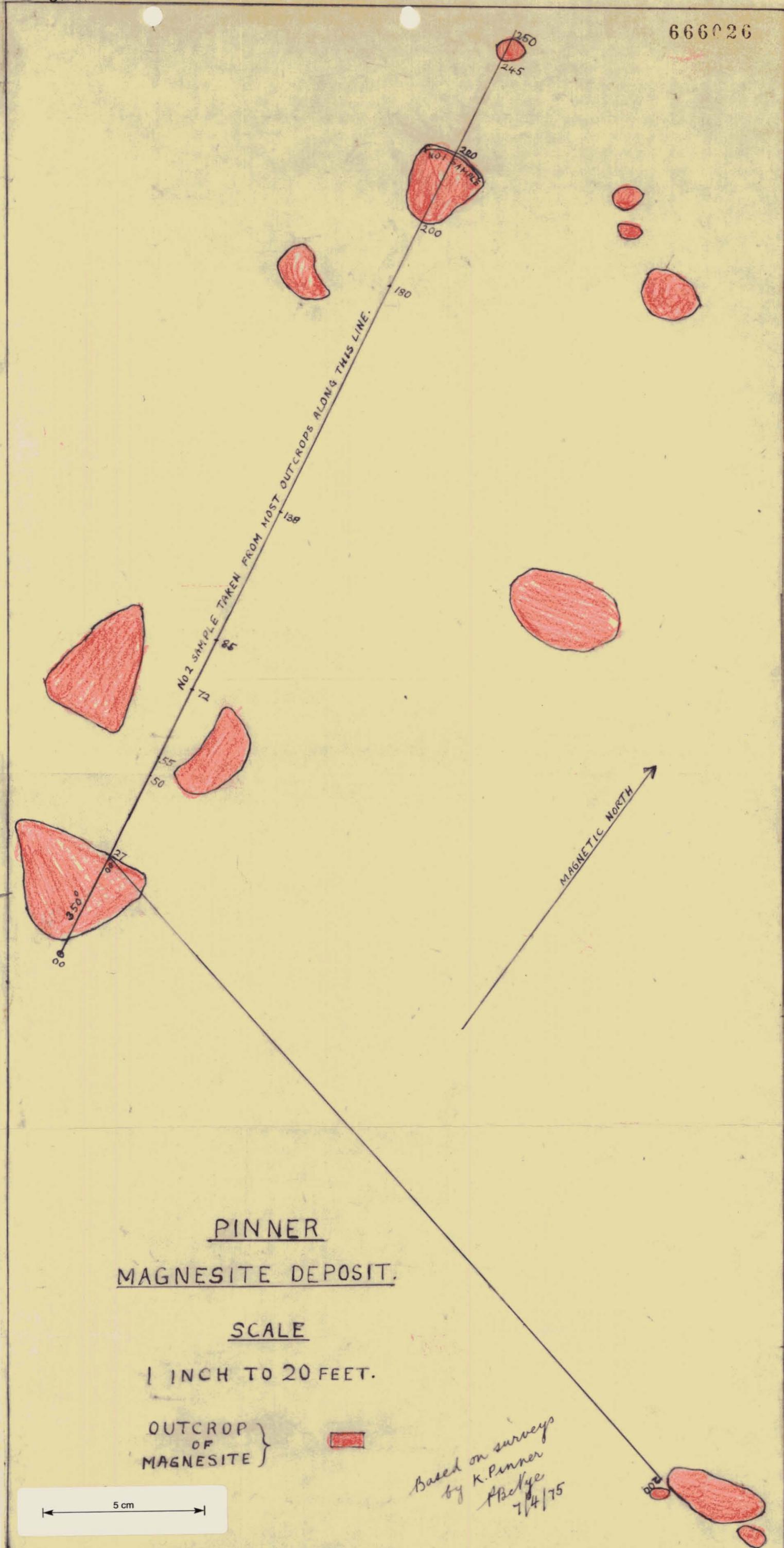
SAMPLE DESCRIPTION: HIGH PURITY QUARTZITES

SOURCE No.	AA-1213	AA-1214	STANDARD		Estimated Accuracy
	W135	W136	BCS-313	Found	
LAB. No.					
ANALYSIS METHOD				Certified	
% Al ₂ O ₃	0.047	0.025	0.160	0.16	±0.005 @ ±0.03 @ 1%
% As					<0.05
% B					
% BaO	0.002	0.002	0.004		±0.002
% Ba ₂ O	<0.002	<0.002	<0.001		±0.002
% Bi					
% CaO	0.011	0.014	0.020	0.02	±0.005
% Cl					
% CoO	0.020	0.019	0.002		±0.005
% C TOTAL	0.03	0.04			±0.03
% CO ₂					
% Cr ₂ O ₃	0.004	0.004	0.001	<0.001	±0.002
% CuO	0.002	0.005	<0.001		±0.002
% F					
TOTAL					
Fe total as % Fe ₂ O ₃	0.034	0.020	0.034	0.03	±0.007
Fe total as % FeO					
% Fe ²⁺					
Fe ²⁺ as % FeO					
% Fe ³⁺					
Fe ³⁺ as % Fe ₂ O ₃					
% H ₂ O ⁻¹¹⁰					
% H ₂ O ^{+110 - 1350}	<0.05	0.07			±0.03
% Ign. Loss °C.					
% K ₂ O	<0.005	<0.005	0.035	0.04	±0.005 @ 0.05
% Li ₂ O					
% MgO	0.005	0.006	0.006	<0.01	±0.003
% Mn TOTAL					
Mn total as % Mn ₂ O ₄	0.002	0.002	0.002	<0.003	±0.002
% Mo ⁴⁺					
% Mo					
% Na ₂ O	0.03	0.02	0.02	<0.01	±0.01
% NiO	0.007	0.006	0.007		±0.003
% Pb					
% P ₂ O ₅	0.001	0.001	0.003		±0.002
% Rb ₂ O					
% S	<0.002	<0.002	0.006		±0.002
S as % SO ₃					
% Sb					
% SiO ₂					
% Sn					
% SrO	<0.002	<0.002	<0.001		±0.002
% TiO ₂	0.078	0.024	0.025	0.022	±0.006
% V ₂ O ₅	0.002	0.002	0.003		±0.002
% W					
% ZnO					
% ZrO ₂	0.004	0.003	0.005		±0.003
% SiO ₂ by difference	99.7	99.7	99.7	99.6	±0.10 @ 1% ±0.20 @ 0.1%
ALL RESULTS	DRY	DRY	BASIS		
Loss on Ignition 110° - 1350°	0.12	0.08			

Datum:

Lfd. Nr. Arb.Nr.	Tag der Probe- nahme	Material	Gedr. SK °C	% G.V. SiO ₂	% Al ₂ O ₃ TiO ₂	% Fe ₂ O ₃ Cr ₂ O ₃	% CaO MgO	% K ₂ O Na ₂ O	% W.A.	r :	Poren ges. offen	EDX K ₂ O	EDX TiO ₂	DFB to te	IWR %	Dauerstand 24 h		
																°C	kg/cm ²	Kontr. %
		Cann. Creek Silika blue		99,52	0,09 0,01	0,33 0,04	0,01 0,01	0,01 0,01	3,2	2,39 2,66	7,7	0,01	0,01		97			
		dito 1425°C, 4 h							4,9	2,61	11,1				80			
		dito 1450°C, 4 h							5,6	2,46	12,0				51			
		dito 1500°C, 4 h							9,5	2,35	18,0				3			
		Cann. Creek Silika white		99,58	0,08 0,01	0,27 0,03	0,01 0,01	0,01 0,02	2,8	2,45 2,65	6,9	0,01	0,01		97			
		dito 1425°C, 4 h							4,1	2,52	9,5				83			
		dito 1450°C, 4 h							5,2	2,37	11,5				49			
		dito 1500°C, 4 h							9,1	2,33	17,4				0,2			
		Vergleiche: Muster v. 14.11.74		99,53	0,01 0,09	0,21 0,01	0,01 0,01	0,01 0,19	5,4	2,27	12,3							

Verteiler: TD - FI - EK - VK - TK - WL - AL



PINNER
MAGNESITE DEPOSIT.

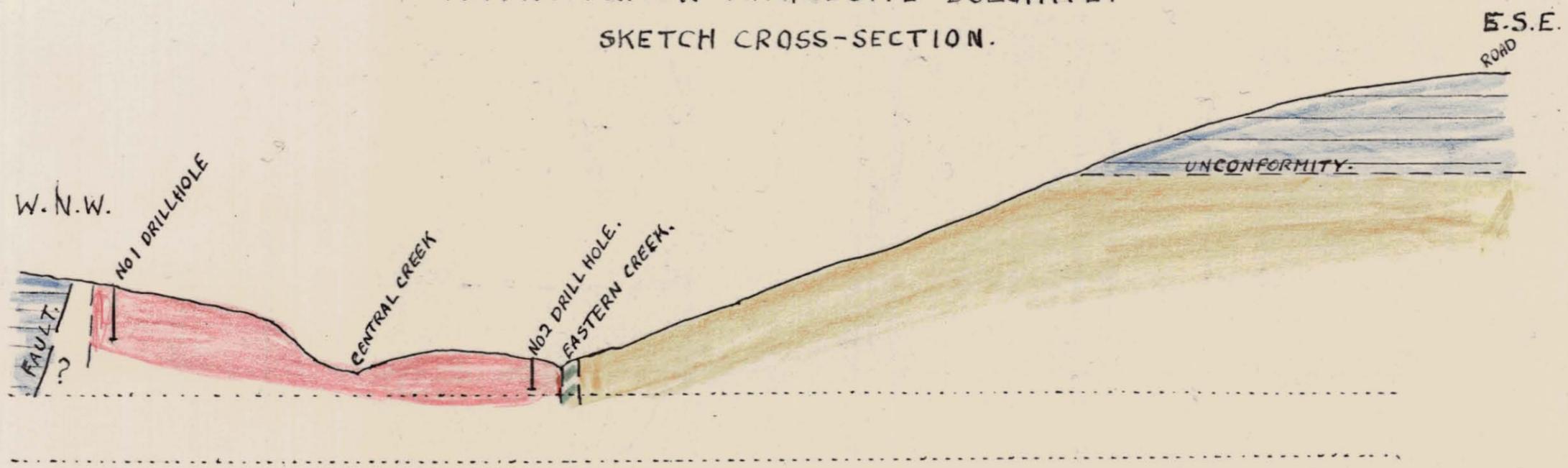
SCALE
1 INCH TO 20 FEET.

OUTCROP
OF
MAGNESITE } █

5 cm

*Based on surveys
by K. Pinner
ABcl/ye
7/4/75*

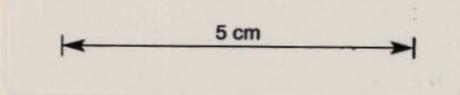
ARTHUR RIVER MAGNESITE-DOLOMITE. SKETCH CROSS-SECTION.



AB 2/42
24/2/75

SCALES

HORIZONTAL } 1 INCH = 200 FEET.
VERTICAL }



- PERMIAN TILLITE, MUDSTONE, ETC.
- MAGNESITE-DOLOMITE.
- PRECAMBRIAN { KEITH RIVER GOSSAN ZONE. (C.R.A.E.)
- KEITH BEDS (MCNEIL)

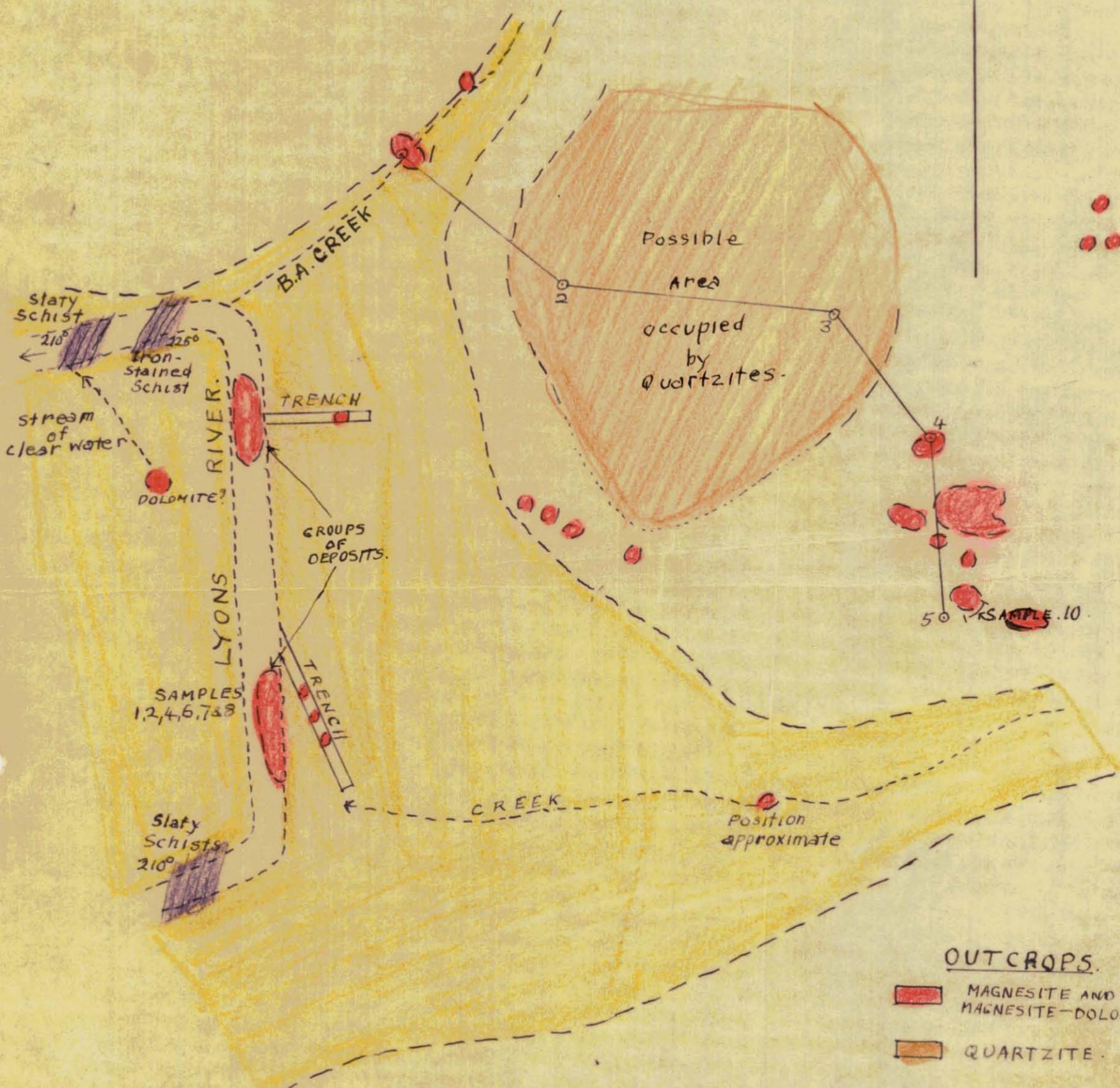
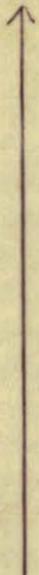
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666028

LYONS RIVER

MAGNESITE

M.N

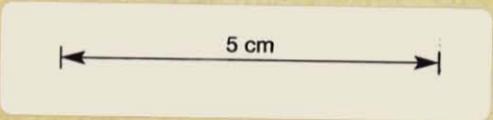


OUTCROPS.

- MAGNESITE AND MAGNESITE-DOLOMITE.
- QUARTZITE.
- SCHIST
- GRAVELS & ALLUVIUM.

SCALE

1 INCH = 100 FEET.



Based on surveys and information by K. Penner (superseding map of 31/1/75) P.H. 14/8/75.