

**REPORT FOR FINANCIAL YEAR ENDED 30 JUNE 1957**

**L.E.E.**

57 - 171

Accompanying Maps  
Lee P 25B, P 25C, P 25D, P 25D.

## LYELL - E.Z. - EXPLORATIONS

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464002

19th July, 1957

**MICROFILMED**

The Chairman,  
Control Committee,  
Lyell - E.Z. Explorations.

Dear Sir,

I beg to submit the following report on the operations of  
Lyell - E.Z. Explorations for the financial year ended 30th June, 1957.

FOREWORD

This being the first annual report, the following matters are  
briefly mentioned for the purposes of record.

The title "Lyell - E.Z. Explorations" designates the organisation  
set up jointly by The Mount Lyell Mining and Railway Company Limited and  
The Electrolytic Zinc Company of Australasia Limited, to prospect for  
mineral deposits in South West Tasmania. The organisation, at this  
stage, has no legal entity, its affairs being under the direct control of  
the West Coast Superintendent and Assistant Superintendent of the E.Z. Company  
and the General Manager and Mine Superintendent of the Mount Lyell Company  
who together constitute a Control Committee with the E.Z. Company's West Coast  
Superintendent as Chairman.

The Mine Superintendent of the Mount Lyell Company acts as liason  
officer between Committee and Field Staff and, in fact, carries out the duties  
of Manager.

The Control Committee was formally constituted and held its first  
meeting on July 31st, 1956.

The exploration resources of the two companies have been pooled  
to provide the equipment and staff necessary for the work undertaken and  
expenditure in each month is shared equally.

Headquarters of the organisation are based in Queenstown, solely for  
reasons of proximity to the area under exploration, and because of that office  
accommodation, living quarters for staff, equipment stores and landing field  
and hangar for helicopter have been made available by the Mount Lyell Company.

PROSPECTING AREA

On the 7th June, 1956, Messrs. H. M. Murray and G. P. Hudepeth of the Mt. Lyell Company made applications to the Warden of Mines for two Special Prospector's Licences, covering approximately 3,000 square miles in South West Tasmania.

The two Licences, slightly reduced in area from that applied for, were granted by the Minister on August 28th, 1956 and were subsequently assigned to the Mt. Lyell Company by the applicants.

The two areas are contiguous and total 2676 square miles. The northern boundary is on an east west line passing approximately through Queenstown to Mt. Hugel on the western shore of Lake St. Clair. The eastern boundary runs due south from Mt. Hugel to meet an east west line passing through Green Island in the vicinity of Port Davey. The sea coast defines the western boundary.

In accordance with the State Mining Act the licences have a currency of six months and, subject to the Minister being satisfied that the conditions relating to bona fide prospecting are being complied with, can be extended for further periods of six months, up to a total of five years.

The first extension was applied for and granted on 28th February, 1957.

ORGANIZATION

Active exploration in the field commenced on December 1st, 1956, under the immediate and joint direction of the Chief Geologist from each Company and a Field Engineer. That arrangement proved to be unwieldy and on January 24th, 1957, the two Chief Geologists voluntarily stood down in favour of a new Geologist-in-Charge who has since, with the Field Engineer, controlled all field operations. The two officers above were very materially assisted by a part-time Secretary who has had charge of all clerical work and stores accounting, has assembled the costs and arranged for the typing of reports etc. A competent drafting woman was engaged for full time assistance.

The remainder of the geological staff required for the prospecting season was supplied by the two companies as needed and was supplemented by

the vocational employment of six students.

Diamond drillers were provided by the E.Z. Company and bushmen, with such other labour as was necessary, by the Mount Lyell Company.

The personnel employed varied during the season but the maximum number, during December, was:

<u>Full Time</u>	<u>Part Time</u>
1 Field Engineer	1 Secretary
4 Senior Geologists	1 Typist
6 Students	1 Draftsman
4 Bushmen	
1 Storeman	
1 Draftswoman	

The total number of man/days spent in the Licence Areas on active exploration was 1241, made-up as follows:

Diamond Drilling	242
Geophysical Examination	270
Geochemical Examination	27
Geological Examination	702
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	1241
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#### Helicopter

A Bristol Sycamore Helicopter was chartered from Australian National Airways from December 1st, 1956 to March 31st, 1957 and was accommodated at the Queenstown Heliport, known as L.E.S. Field, which was built by Mt. Lyell for the purpose. The aircraft was operated by a crew of two pilots and an engineer and provided the prime means of transport for the exploring parties. It proved to be ideal for the purposes required in the initial exploration season when the main need was for a general reconnaissance over a large area involving long flights.

Damage sustained in a forced landing put the helicopter out of service for twelve days, a routine engine change caused another break of

thirteen days and other delays due to mechanical troubles brought the total lost time to twenty-eight days.

Otherwise performance was good.

In addition to the transport needs of this organisation, flights were made for the E.Z. Company, Rio Tinto, Adastral Hunting, Mt. Lyell and the Hydro-Electric Commission.

The total work and performance of the aircraft while under the direction of our Field Engineer is summarised below:

	<u>For L.E.E.</u>	<u>For Others</u>
Number of Flights	182½	91½
Charge Time	229 hrs. 40 mins.	71 hrs. 34 mins.
Flying Time	204 hrs. 25 mins.	
Passengers Carried	501	289
Total Freight Carried	169,177 lbs.	82,591 lbs.
Pound/Minutes flown	4,094,950	

The charter rate was £76/3/- per hour.

Total Expenditure was £17,490/7/9.

The cost per lb./minute flown was 1.0002 pence.

#### OTHER TRANSPORT

Other forms of transport used for communication, exploration and reconnaissance were:

A.	Motor Vehicles	7,413 miles	Cost	£308. 17. 6
B.	Boats			
	Motor Launches	Hired 48 days	Cost	£477. 3. 0
	Runts and Dinghies		Cost	£12. 15. 0
C.	Light Aircraft	25 Hrs. 30 mins.	Cost	£153. 12. 0
			Total	<u>£952. 7. 6</u>

#### EQUIPMENT

The total value of camping equipment, office furniture, drafting materials and general stores, other than food, charged to L.E.E. was £4323/2/5.

A complete list is appended to account for the materials jointly

owned by the two companies. It will be noted that stock-taking was done at June 30th and revealed a loss amounting to only £60/3/7. In view of the nature of the stores and the use to which they were put, that result is very good and reflects the close control exercised by the Field Engineer.

#### FOOD

All hands working from field camps were supplied with food free of charge. The final cost being 18/- per man/day.

#### STORAGE AND ACCOMMODATION

The landing field and hangar owned by the Mt. Lyell Company includes office space for the Field Engineer and Helicopter Crew, together with two store-rooms for food and equipment. The whole of which is rented to L.E.E. for £7 per week, free of charges for power and light.

L.E.E., in turn, charged A.N.A. £7 per week for the use of the field and building during their four months of occupancy.

Living accommodation for the unmarried members of the exploration staff was provided by Mt. Lyell free of charge to L.E.E. or the individuals. The men using that accommodation made their own arrangements about meals.

Office accommodation was first provided at the Mt. Lyell Company's Queenstown Mine Office, and later by the proper fitting up of a large room in the house allotted for living quarters. No rent is charged for the house, but the cost of alterations and the addition of a fire-proof room was charged to L.E.E. That sum was £628/19/6.

#### DIAMOND DRILLING - PERSONNEL AND EQUIPMENT

The two drillers were supplied by the B.Z. Company and the equipment was jointly supplied by the two Companies, in about equal proportion, from their own resources.

#### GEOPHYSICAL

A well organised geophysical party under an experienced geophysicist was loaned by the Bureau of Mineral Resources and carried out an examination in the East Darwin area.

The man/days spent on that work were 270 and the cost to L.E.E. was £662/15/5. That expenditure was incurred in helicopter transport for equipment (£427/12/-) and by the provision of a cook and two junior labourers.

AERIAL PHOTOGRAPHY

A contract was made with Adastral Airways Pty. Ltd., in August, 1956, for the complete photographing of both licence areas and the preparation of mosaics. The total cost of the work was quoted at £13,206.

Poor flying weather and long periods of overcast conditions seriously interfered with the contractor's programme and the photography was not completed until June, 1957. The absence of aerial photographs for the field work undertaken during the December 1st - March 31st season was a serious handicap and considerably decreased the work accomplished by the geological field parties.

For the same reason no aerial geophysical work could be undertaken since no mosaics were available on which to plan and control the surveys.

At June 30th the photography was complete and the preparation of mosaics had proceeded sufficiently for an aircraft of Adastral Hunting Ltd. to be transferred to Hobart in preparation for starting the magnetometer survey. That survey is planned to cover the more rugged terrain in the northern and eastern parts of the areas while the remainder is to be surveyed by the Canso method.

EXPENDITURE

The total expenditure to June 30th, 1957, is detailed on the cost statements attached to this report and should require no elaboration.

EXPLORATION ACCOMPLISHED

Detail of the exploratory work actually accomplished is summarised in the report of the Geologist-in-Charge attached herewith.

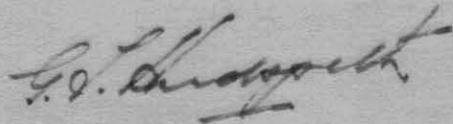
In total the work of this first year has been encouraging and although no mineralisation of economic importance was located, very good reasons for full-scale continuance of the exploration have been found. The presence of rock types favourable to ore deposition elsewhere on the West Coast of Tasmania has been proved and the persistence of the major structural feature associated with the orebodies of Mount Lyell and known as the "Lyell Shear" has likewise been confirmed. On completion of the aerial geophysical survey during the coming summer it is likely that a considerable part of the prospecting areas will be surrendered as of no further interest but there is already little

doubt that a fairly large area adjacent to the sea coast will warrant detailed examination. The area in question stretches south from Macquarie Harbour to the vicinity of Elliott Bay and major interest probably centres around Mount Osment. Much of the promising area is open, flat country and should the need arise for the introduction of prospecting machinery no difficulty would be experienced in establishing a landing strip or strips for fixed-wing aircraft. The area is also entirely suited to geophysical survey by the Causse method and will be given priority as soon as that equipment is available. Similarly it is intended to concentrate the field parties in the area during the next summer season.

CONCLUSION

In conclusion I wish to record my appreciation of the unfailing assistance and co-operation rendered by officers of the Electrolytic Zinc Company in the establishment of the organisation in Queenstown and its subsequent operation. I also record the loyal and efficient service rendered by the exploratory staff and bushmen and particularly note that of the Field Engineer who cheerfully worked seven days a week throughout the summer to ensure the safety and maintenance of parties in the field.

Yours faithfully,



Manager.

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## Lyell - E.Z. - Explorations

EXPENDITURE FOR PERIOD ENDED 30th June, 1957.

No. 12

3502.8.56 Hingston

	Mt. Lyell	E. Zinc	Total	TO DATE		
				Lyell	E.Z.	Total
1. Administration	170. 6. 3	314. 6. 10	484. 13. 1	3561. 3. 4	1787. 15. 7	5348. 18. 11
2. Investigations	91. 2. 9	484. 5. 8	575. 8. 5	5737. 2. 5	3278. 15. 9	9015. 18. 2
3. Access & Housing	267. 9. 7	435. 3. 7	702. 13. 2	22663. 15. 9	628. 10. 9	23292. 6. 6
4. Core Drilling	85. 2. 5	298. 7. 3	383. 9. 8	513. 6. 1	1723. 19. 0	2237. 5. 1
5. Exploratory Dev.						
6. Plant	166. 6. 8		166. 6. 8	1482. 14. 11		1482. 14. 11
<b>Total</b>	<b>780. 7. 8</b>	<b>1532. 3. 4</b>	<b>2312. 11. 0</b>	<b>33956. 2. 6</b>	<b>7419. 1. 1</b>	<b>41377. 3. 7</b>
Balance due to						

For The Mt. Lyell M. &amp; R. Co. Ltd.

.....General Manager

.....Accountant

For The E.Z. Co. of Aus. Ltd.

.....Superintendent

.....Accountant

15th July,

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SUMMARY OF EQUIPMENT HIRED & CHARTEREDHelicopter Charter - Hours

Iyell - E.Z. - Explorations	229 hours	41 mins.
Adastra Hunting Geophysics Pty. Ltd.	32 "	30 "
Rio Explorations Pty. Ltd.	19 "	45 "
Hydro-Electric Commission	9 "	49 "
Electrolytic Zinc Co. of Aus. Ltd.	8 "	20 "
Australian National Airways Pty. Ltd.	0 "	50 "
Ht. Iyell M. & R. Co. Ltd.	0 "	20 "

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301 hours 15 mins.

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Miscellaneous Equipment Hired

<u>Motor Launches:</u>	"Yvonne"	54. 18. 0	
	"Mola Too"	394. 5. 0	
	D. Grining	<u>28. 0. 0</u>	477. 3. 0
<u>Punts</u>	"Claire"	2. 0. 0	
	R. Cullen	2. 15. 0	
	G. Abel	<u>8. 0. 0</u>	12. 15. 0
<u>Aeroplanes</u>	L. Jones	<u>153. 12. 0</u>	153. 12. 0
			<hr/> <u>£643. 10. 0</u> <hr/>

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15th July,

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SUMMARY OF INSURANCE PREMIUMS PAIDHelicopter Flights - Personnel Insurance

		<u>Mt. Lyell</u>	<u>R.Z.</u>	<u>Total</u>
December	1956	55. 6. 7	26. 0. 0	81. 6. 7
January	1957	43.17.10	11. 0. 0	54.17.10
February	"	17.12. 0	2. 0. 0	19.12. 0
March	"	22. 2. 2	3. 0. 0	25. 2. 2
April	"	2 19. 5	3. 0. 0	5.19. 5
		<u>£141.18. 0</u>	<u>£45. 0. 0</u>	<u>£186.18. 0</u>

Helicopter Flights - Equipment Insurance

		<u>Cover</u>	<u>No. of flights</u>	<u>Premium</u>
December	1956	3460	60	9.10. 3
January	1957	3290	40	9. 0.11
February	"	2931	30	8. 1. 2
March	"	2780	30	7.12.11
April	"	630	7	1.14. 9
		<u>£13091</u>	<u>167</u>	<u>£36. 0. 0</u>

Fire Insurance - Camping Equipment etc., personal effects

		<u>Cover</u>	<u>Premium</u>
December	1956	2140	
January	1957	3080	
February	"	2430	
March	"	2780	
April	"	1030	
		<u>£11460</u>	<u>£9.11. 9</u>

LYELL - E.Z. - EXPLORATIONS

Plant and Equipment Purchased and on Hand 30/6/57

464011

	Plant & Equipment Purchased			Lost or Destroyed		On Hand 30/6/57	
	Qty.	Unit Price	Value	Qty.	Value	Qty.	Value
Anti-venine serum	8	N/c	- - -			8	- - -
Axes	5	1 12 1	8 0 5			5	8 0 5
Axes-half	4	1 13 11	6 15 8	1	1 13 11	3	5 1 9
Bags-sleeping envelopes	24	1 4 9	29 14 0			24	29 14 0
Bags-sleeping	18	11 17 6	213 15 0	1	11 17 6	17	201 17 6
Bandages-constriction	5	14 8	3 13 4			5	3 13 4
Basins-large	5	13 3	3 4 3			5	3 4 3
Basins-small	4	9 6	1 18 0			4	1 18 0
Beaters-egg	1	10 6	10 6			1	10 6
Billies-aluminium	16	12 6	10 0 0	6	3 15 0	10	6 5 0
Billies-tin	3	4 5	13 3			3	13 3
Blankets	36	2 11 3	92 5 0			36	92 5 0
Boats-fibre glass 8'4" x 3'9"	1	74 5 2	74 5 2			1	74 5 2
Boilers-alluminium	5	2 5 9	11 8 9			5	11 8 9
Boot lasts	2	18 6	1 17 0			2	1 17 0
Brooms-bass	1	9 8	9 8			1	9 8
Brooms-hair	1	13 2	13 2			1	13 2
Buckets-canvas	4	1 2 4	4 9 4			4	4 9 4
Buckets-drinking	2	10 6	1 1 0	1	10 6	1	10 6
Carborundum Stores	12	5 0	3 0 0	3	15 0	9	2 5 0
Cleaners-pot mitt	2	1 0	2 0	1	1 0	1	1 0
Cleaners-plate scrapers	13	2 3	1 9 3			13	1 9 3
Cloths-dish	12	3 9	2 5 0	7	1 6 3	5	18 9
Coats-waterproof (3/4)	8	4 12 0	36 16 0			8	36 16 0
Coats-waterproof japara	12	2 2 0	25 4 0	2	4 4 0	10	21 0 0
Cans-watering	1	1 2 0	1 2 0			1	1 2 0
Containers-plastic	6	4 1 1/2	1 4 10			6	1 4 10
Dishes-baking	2	10 9	1 1 6			2	1 1 6
Dishes-gold panning	6	12 6	3 15 0	1	12 6	5	3 2 6

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464012

	Plant & Equipment Purchased			Lost or Destroyed		On Hand 30/6/57	
	Qty	Unit Price	Value	Qty.	Value	Qty.	Value
Files-surform	2	1 6 6	2 13 0			2	2 13 0
First Aid Books	6	5 0	1 10 0	2	10 0	4	1 0 0
First Aid Kits-large	5	5 19 1	29 15 5			5	29 15 5
First Aid Kits-small	5	1 6 0	6 10 0			5	6 10 0
Flys-tent 14' x 16'	12	28 7 10	340 14 0			12	340 14 0
Flys-tent 14' x 16' (second hand)	1	7 0 10	7 0 10			1	7 0 10
Forks-large table	18	3 4	3 0 0	3	10 0	15	2 10 0
Forks-small table	18	5 3	4 14 6			18	4 14 6
Forks-meat	3	17 6	2 12 6			3	2 12 6
Grillers-steak	5	10 6	2 12 6			5	2 12 6
Ground Sheets	24	2 6 8	56 0 0			24	56 0 0
Hammers-claw	1	1 1 4	1 1 4			1	1 1 4
Hats-sou' wester	18	10 3	9 4 6	4	4 2 1	14	7 3 6
Hooks-slash	6	1 13 6	10 1 0			6	10 1 0
Hooks-fern	3	15 0	2 5 0			3	2 5 0
Hose-plastic 3/4"	60'	1 10	5 10 0			60'	5 10 0
Hose-suction 3/4"	15'	4 5	3 6 6			15'	3 6 6
Hose-suction 2"	30'	9 10	14 15 7			30'	14 15 7
Hypodermic needles	24	1 2	1 7 4			24	1 7 4
Hypodermic syringes	8	10 5	4 3 4			8	4 3 4
Jugs-enamel (2 pt.)	4	18 11	3 15 8			4	3 15 8
Jugs-aluminium	1	12 0	12 0			1	12 0
Knives-bread	6	7 1	2 2 6	2	14 2	4	1 8 4
Knives-carving	6	13 11	4 1 6			6	4 1 6
Knives-table	18	5 6	4 19 0	5	1 7 6	13	3 11 6
Lamps-carbide	1	2 5 3	2 5 3			1	2 5 3
Lamps-hurricane	1	17 7	17 7			1	17 7
Lanterns-Tilley	8	6 18 6	55 8 0			8	55 8 0
Ladles	1	3 11	3 11			1	3 11
Li-los-rubber 80" x 30"	18	6 6 0	113 8 0			18	113 8 0

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	Plant & Equipment Purchased			Lost or Destroyed		On Hand 30/6/57	
	Qty.	Unit Price	Value	Qty.	Value	Qty.	Value
Mattocks	4	14 6	2 18 0			4	2 18 0
Mops-dish	10	1 10	18 4	1	1 10	9	16 6
Mugs-enamel	30	4 9	7 2 6	7	1 13 3	23	5 9 3
Nets-cargo	4	15 12 6	62 10 0			4	62 10 0
Ovens-camp	1	4 18 6	4 18 6			1	4 18 6
Pans-frying (aluminium)	5	17 6	4 7 6	1	17 6	4	3 10 0
Pants-waterproof	12	4 9 0	53 8 0			12	53 8 0
Picks-S.E.	4	18 9	3 15 0			4	3 15 0
Plates-enamel (large)	18	5 5	4 17 6			18	4 17 6
Plates-tin (small)	18	1 5	1 5 6	5	7 1	13	18 5
Pliers	4	6 10	1 7 4	1	6 10	3	1 0 6
Rakes-garden	1	8 2	8 2			1	8 2
Radios-Teleradio 5A	5	200 4 1	1001 0 5			5	1001 0 5
Radio-(Radiola receiver)	1	25 0 0	25 0 0			1	25 0 0
Radio batteries	14	8 18 0	124 12 0			14	124 12 0
Radio aerials and pegs	6	1 8 10	8 13 0	1	1 8 10	5	7 4 2
Radio poles (sets)	4	1 10 0	6 0 0			4	6 0 0
Rasps-wood	1	6 7	6 7			1	6 7
Rope-wire 1/2"	250'	1 2	14 11 8			250'	14 11 8
Rowlocks	1 pr.	4 10	4 10			1 pr.	4 10
Rucksacks-Berger type	9	9 10 0	85 10 0	1	9 10 0	8	76 0 0
Rucksacks-Paddi Pallin	3	9 2 9	27 8 3			3	27 8 3
Safes-Simpson (cool)	4	3 9 6	13 18 0			4	13 18 0
Safes-steel	4	2 0 10	8 3 4	1	2 0 10	3	6 2 6
Sampling sheets-rubberised	5	1 3 8	5 18 4			5	5 18 4
Saw-hand 26"	1	1 15 10	1 15 10			1	1 15 10
Shovels-S.H.R.M.	7	14 7	5 2 1	1	14 7	6	4 7 6
Slices-fish	5	2 4	11 8			5	11 8
Snake-bite Outfits (plastic)	6	2 0	12 0			6	12 0

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464014

	Plant & Equipment Purchased			Lost or Destroyed		On Hand 30/6/57	
	Qty.	Unit Price	Value	Qty.	Value	Qty.	Value
Splints-Liston (sets of 5)	4	3 15 1	15 0 4			4	15 0 4
Spoons-baking	5	2 9	13 9	1	2 9	4	11 0
Spoons-desert	19	3 9	3 11 3	2	7 6	17	3 3 9
Spoons-table	4	6 3	1 5 0			4	1 5 0
Spoons-tea	12	9	9 0	2	1 6	10	7 6
Sprayers-fly	5	4 2	1 0 10			5	1 0 10
Stretchers-Turley	4	7 1 5	28 5 8			4	28 5 8
Stoves-kerosine	4	10 18 6	43 14 0			4	43 14 0
Stoves-primus	2	3 19 6	7 19 0			2	7 19 0
Tables	4	2 15 0	11 0 0			4	11 0 0
Tea Pots	4	3 2 9	12 11 0			4	12 11 0
Tents-12 oz. duck 10' x 12'	8	30 6 2	241 9 4			8	241 9 4
Tents-one man hikers	3	5 19 6	17 18 6			3	17 18 6
Tent poles - (sets)	6	1 10 0	9 0 0			6	9 0 0
Tins-bread	1	1 10 0	1 10 0			1	1 10 0
Tin openers	9	1 6	13 6	3	4 6	6	9 0
Tomahawks	4	19 3	3 17 0	2	2 17 9	1	19 3
Torches-rubber waterproof	12	1 0 2	12 2 0	1	1 0 2	11	11 1 10
Towels-tea	20	4 8	4 13 4	5	1 3 4	15	3 10 0
Trolley-L.E.E. Field	1	23 12 6	23 12 6			1	23 12 6
<u>DRAWING OFFICE - L.E.E. HOUSE</u>							
<u>Furniture</u>							
Cabinets-plan filing-6 drawer	2	77 0 1 1/2	154 0 3			2	154 0 3
Cabinets-photo filing-6 drawer	1	126 10 11	126 10 11			1	126 10 11
Cabinets-filing-4 drawer	1	36 13 4	36 13 4			1	36 13 4
Chairs-telephoniste	1	9 8 3	9 8 3			1	9 8 3
Chairs-kitchen	3	2 10 0	7 10 0			3	7 10 0
Desks-Office-4 drawer	1	20 1 9	20 1 9			1	20 1 9
Tables-draughting-3trestle E.E.	1	50 0 0	50 0 0			1	50 0 0
Tables-draughting	3	20 0 0	60 0 0			3	60 0 0

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Plant & Equipment Purchased

Lost or Destroyed

On Hand 30/6/57

Qty. Unit Price Value

Qty. Value

Qty. Value

EQUIPMENT

Basket-waste paper	1	1 18 6	1 18 6			1	1 18 6
Book-Walkers loose leaf	1	1 15 0	1 15 0			1	1 15 0
Desk Calendar Complete	1	7 0	7 0			1	7 0
Durex Dispenser	1	1 12 6	1 12 6			1	1 12 6
Guillotine-12" hand operated	1	6 14 0	6 14 0			1	6 14 0
Lettering guides 1/4", 1/2" & 1" (1 off ea.)	3	15 6)					
		1 5 6)	3 14 6			3	3 14 6
		1 13 6)					
Letter tray-oak	1	1 2 6	1 2 6			1	1 2 6
Maps and photo holders	4	1 17 1/2	7 8 7			4	7 8 7
Parallel ruler	1	4 10 0	4 10 0			1	4 10 0
Pens-crow quill	36	5 1/2	16 6			36	16 6
Pens-contour (Hurling)	1	15 0	15 0			1	15 0
Penholders-mapping Rolinx	6	10	5 0			6	5 0
Pen prickers-Hurling	2	5 6	11 0			2	11 0
Pencil sharpener	1	2 0 0	2 0 0			1	2 0 0
Perforator-Velos	1	14 6	14 6			1	14 6
Protractors-Douglas W. & G.	2	9 6	19 0			2	19 0
Scales, 10-40, 30-60, 60-90	6	10 6	3 3 0			6	3 3 0
Scales-12" No. 512 W. & G.	2	10 6	1 1 0			2	1 1 0
Scales-12" No. 712 W. & G.	2	10 6	1 1 0			2	1 1 0
Stamp-rubber L.E.E.	1	5 5	5 5			1	5 5
Stamp pad-self inking	1	3 3	3 3			1	3 3
Set Square-13" celluloid 600	1	11 6	11 6			1	11 6
Set Square-13" celluloid 450	1	11 6	11 6			1	11 6
Straight edge-steel	1	4 10 0	4 10 0			1	4 10 0
Straight edge-wooden	1	5 0	5 0			1	5 0
Scissors	1	19 6	19 6			1	19 6

014

464016

	Plant & Equipment Purchased			Lost or Destroyed		On Hand 30/6/57	
	Qty.	Unit Price	Value	Qty.	Value	Qty.	Value
<u>MAPS, CHARTS, REPORTS, PHOTOGRAPHS ETC.</u>							
<u>Aerial Photographs: 30 Chain</u>							
ex Adastra - Runs 1-15, 16, 17 & 18, 24, 25, 26, 27, 29, 31, 32, 35.	2126	5 0	525 5 0			2126	525 5 0
ex Lands & Surveys: Lyell, Pillinger, Pedder, Rocky Point.	58	7 6	21 15 0			58	21 15 0
Rocky Point, Pedder.	125	7 6	54 7 6			125	54 7 6
<u>Photo Mosaics: ex Adastra</u> Nos. 1, 3, 5 & 6 (off each)	12	2 10 0	30 0 0			12	30 0 0
<u>Photo Laydowns: 1 m. = 1"</u>							
Huntley	4	1 1 0	4 4 0	2	2 2 0	2	2 2 0
Gordon	4	1 1 0	4 4 0	2	2 2 0	2	2 2 0
Pt. Hibbs	4	1 1 0	4 4 0	3	3 3 0	1	1 1 0
Lyell	1	1 1 0	1 1 0			1	1 1 0
Pillinger	1	1 1 0	1 1 0			1	1 1 0
Strahan	1	1 1 0	1 1 0			1	1 1 0
<u>Charts:</u>							
Gordon River Mineral Area	2	7 0	14 0			2	14 0
Huntley-Pedder Mineral Area	2	7 0	14 0			2	14 0
Clair-King William Mineral Area	2	7 0	14 0			2	14 0
Low Rocky Point Mineral Area	2	7 0	14 0			2	14 0
<u>Maps:</u>							
State Map M4 sheet 3 4m = 1"	6	4 0	1 4 0			6	1 4 0
State Map M4 sheet 5 4m = 1"	6	4 0	1 4 0			6	1 4 0
State Map of Tas. 8m = 1"	1	5 0	5 0			1	5 0
Mineral Map - new issue	1	2 6	2 6			1	2 6

015

464017

Sketch Maps:

	Plant & Equipment Purchased			Lost or Destroyed		On Hand 30/6/57	
	Qty.	Unit Price	Value	Qty.	Value	Qty.	Value
Geology of Tas No.13 16m = 1"	1	1 3	1 3			1	1 3
Mineral Resources of Tas. No.12 16m = 1"	1	1 3	1 3			1	1 3
Mineral Resources No.9	2	5 0	10 0			2	10 0
South Sketch Maps	2	2 6	5 0			2	5 0
South/West Sketch Maps	2	2 6	5 0			2	5 0

Reports (Typed)

Awiferous Deposits in Tas. - Nye	1	2 6	2 6			1	2 6
Hanagans Creek Prospecting Operation - Henderson	1	2 6	2 6			1	2 6
Gold Mine-King River - Finucane & Blake	1	2 6	2 6			1	2 6
Jane River & Prince of Wales Range - Blake	1	2 6	2 6			1	2 6
Mainwaring & Wandera Rivers - Blake	1	2 6	2 6			1	2 6
Geological features of Queenstown - Finucane	1	2 6	2 6			1	2 6
Espie's Prospect - Nye	1	2 6	2 6			1	2 6
Copper in Tasmania - Nye	1	2 6	2 6			1	2 6
Annual Report 1945	1	2 6	2 6			1	2 6

Atlas:

Regional Planning 1947	1	1 10 0	1 10 0			1	1 10 0
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£4323 2 5

£60 3 7

£4262 18 10

Consumable stores as per attached list

243 18 1

£4506 16 11

016

Consumable Stores on hand 30th June, 1957.

	Qty.	Price	Value
Bags-sand	120	2 1 $\frac{1}{4}$	12 12 6
Canvaseal	4	7 6	1 10 0
Canvas-striped	9	8 0	3 12 0
Files-10" flat	5	2 7	12 11
Handles-axe	4	8 5	1 13 8
Handles-slasher	2	6 1	12 2
Lanterns-Tilley-spare globes	1	9 9	9 9
Lanterns-Tilley-spare mantles	21	1 6	1 11 6
Methylated Spirits-bottles	15	3 4	2 10 0
Paint brushes	3	7 3	1 1 9
Pegs-tent	59	1 1	3 3 11
Petrol-high octane-aviation (9 x 44)	396		107 2 0
Rations-emergency (10 men/day)	4	5 17 0	23 8 0
Repellant-sandfly	8	2 0	16 0
Rope-clothesline	2	4 0	8 0
Rope-1" sisal	26 lb.	2 2	2 16 4
Rope-1 $\frac{1}{2}$ " hemp	60 ft.	2	10 0
Saccharine Tablets	15	2 3	1 13 9
Salt-rock	7	6	3 6
Sample bags	210	6 0	63 0 0
Sample bag aluminium tags	102	1	8 6
Sashcord	20 lb.	8 10	8 16 8
Stoves-Coleman-spare burners	4	1 6 3 $\frac{1}{2}$	5 5 2
			<u>£243 18 1</u>

19th July, 1957

Mr. G. F. Hudspeth,  
 Manager,  
 Lyell - E.Z. Explorations.

Dear Sir,

Herewith I present a summary of the exploration work done by the organisation now under my control, from its inception in November, 1956 to June 30th, 1957.

1.

GEOLOGICAL SURVEYS

Geological investigations were carried out from 39 major<sup>≡</sup> and 13 subsidiary<sup>≡</sup> camp sites, as shown on map P25c. This map does not include the six investigations which were based directly on Queenstown, each of which involved only a day trip. All camps, with the exception of those on Macquarie Harbour and the lower reaches of the Gordon River, were carried and supplied by helicopter.

The first camp was commenced on 1st December, 1956 and the season closed with the return of the last party to base on 13th April, 1957. However, camping was resumed on the 22nd May, at the diamond drill site at Pelias Cove, on the west shore of Macquarie Harbour.

Broadly the surveys can be split into two types: investigation of known prospects and regional mapping.

Prospects known in the concession were examined and these are summarised in Table 1. Eighteen sites were investigated and further work was recommended on seven of these, five for airborne geophysics and two for diamond drilling (Pelias Cove and Lake Jukes). The results of the diamond drilling are summarised in Section 2.

The general plan of campaign for the regional mapping was to gradually work southwards, with one camp finally on the West Coast only eight miles north of Port Davey and 80 miles south of Queenstown. Despite the

<sup>≡</sup> Major Camp Site: Three men, heavy camping gear, radio contact with and based on Queenstown, 7 - 28 days duration.

<sup>≡</sup> Subsidiary Camp Site: Three men, light camping gear, based on major camp site, 2 day duration (one night).

severe handicap of the lack of aerial photographs or reasonably accurate maps south of the Wanderer River the required programme of mapping was completed by the beginning of April. These results, with those of photo-geological interpretation (Section 4), are briefly summarised in sketch map P25b. The areas of interest are the purple zones (Dundas rocks) since these rocks have consistently been the host-rocks for mineralisation on the West Coast (c.f. Rosebery - Queenstown). The areas of special interest are the contact zones of purple/grey (in this case Dundas/Owen Conglomerate), and the areas of red (granitic rocks). The zone of highest interest is the Dundas/Owen Conglomerate contact immediately to the west of Mt. Osmund. This zone is a line of strong faulting/folding, with the bedding of the Conglomerate standing practically vertically on end against the more gently dipping Dundas rocks. It terminates southwards with the area of heavy alteration at Low Rocky Point where rocks of granitic appearance seem to have been formed from sediments. Sulphide mineralisation is known at this southern end at Penders and Diorite Creek prospects (numbers 14 and 7 in Table 1).

## 2.

DIAMOND DRILLING

Two prospects were tested by diamond drilling, Lake Jukes and Felias Cove (Map P25c).

(a) Lake Jukes

Location: 8 miles south of Queenstown.

One diamond drill hole, 650 feet in length, was completed using the K1000 drill-rig. The hole did not intersect any ore of economic interest; core recovery was good (86%) throughout the drilling. One further hole is to be drilled at this locality.

(b) Felias Cove

Location: 20 miles south west of Queenstown, west shore of Macquarie Harbour.

One diamond drill hole has been completed, 117 feet in length, using the light K100 drill-rig. With this hole it was hoped to intersect the sulphide zone, which exists on the beach, at approximately 80 feet below its outcrop. However, considerable difficulty was encountered with the soft friable ground and core recovery has been poor (10%) with the result that the drilling was inconclusive. A second hole has been laid out and will

be commenced in early July.

3. AERIAL PHOTOGRAPHY

Owing to the extremely wet summer, the aerial photography of the concession was considerably delayed, but reports from Adastra Hunting Geophysics Pty. Ltd. state that all of the area had been covered by the end of the year with the exception of three runs. These runs are marked on map P25d. The stereoscopic cover (30 chains to one inch) available at Queenstown and the four 30 chain photo-mosaics which had been received by the end of the year are also shown on this map.

The photographs and photo-mosaics are of a very high standard and are entirely suited to the photo-geological interpretation of the area and preparation of base maps for the geological and geophysical overlays.

4. PHOTO-GEOLOGY

The extent of the photo-geological interpretation is shown on map P25e, it can be summarised as follows:

L.E.R. Completed	950 sq. miles
L.E.R. Outstanding	350 sq. miles
Interpretation to be carried out by Professor S. W. Carey	1100 sq. miles
Already completed by Mt. Lyell Exploration Department and H.E.C.	380 sq. miles
	-----
	2880 sq. miles
	-----

These figures exclude the area of Port Davey and south to South-West Cape, since this has been the area of a special geological investigation by the Department of Mines and the University of Tasmania.

5. GEOPHYSICS

(a) Ground Work - Bureau of Mineral Resources

The ground examination of the East Darwin prospect (10 miles south-east of Queenstown) was carried out using the magnetometer and "Turam" (electro-magnetic) equipment. A final report and plans covering this area will not be available for several months but discussions with the officer in charge of the party indicate that the results are not encouraging.

In addition this party completed a radiometric survey of the Findons prospect, again the final report is not yet available but preliminary indications are not encouraging.

(b) Airborne

Owing to the lack of suitable photo-mosaics, no fixed-wing airborne geophysical survey work was attempted during the year.

During April the electro-magnetic survey of the Jukes-Darwin area was commenced with the helicopter. The flight was of short duration (one hour) but the results from the flight lines over South Darwin (13 miles south of Queenstown) demonstrated the applicability of this geophysical method in mountainous terrain. In particular the Prince Darwin orebody (number 4 in Table 1) gave one of the largest anomalies yet recorded by the geophysical instrument.

Approximately 7-8 hours flying will be required to complete this section which lies immediately to the south of Queenstown.

6.

GEOCHEMISTRY

Geochemical testing for base metals in stream waters was used in the regional geological mapping campaign and investigation of selected prospects during the entire summer season. Towards the end of the season an orientation survey was carried out at known centres of mineralisation: three localities were chosen, Findons prospect, the King River (6 miles east of Queenstown) and the Pinnacles Mine, near Rosebery. Soil, stream sediment and water samples were tested and in all 290 samples were collected.

The results indicate the applicability of this method for locating sulphide mineralisation. In particular geochemical prospecting will be extremely useful in testing selected geophysical anomalies to distinguish between those which are due to sulphide mineralisation and those due to other causes.

7.

OFFICE WORK

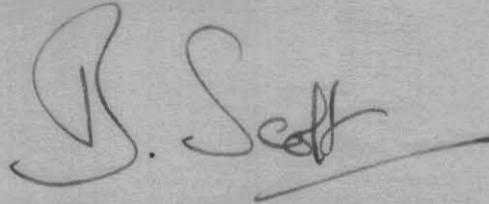
The preparation of maps and plans and the examination of rock specimens have been actively continued in the Queenstown office. Forty-nine samples have been sent to the University of Tasmania for the preparation of thin rock sections.

The geiger-counter was used to test selected specimens for radio-activity, none of the specimens tested showed anything of interest.

Since the beginning of the geological work in early November, thirty-eight separate reports have been issued and supply detailed information of all the work done.

Twenty-eight reports concerned the examination of prospects and regional mapping, four were concerned with geochemical work, one related to diamond drilling and the subject matter of the remaining five was geophysics.

Yours faithfully,

A handwritten signature in cursive script, appearing to read "B. Scott", with a horizontal line extending from the end of the signature.

Geologist-in-Charge.

TABLE 1

Prospects Examined

Name	Location	Type of Mineral	Type of Investigation	Recommendation	Follow-up on Recommendation	Report
<u>Prospects Examined but not Fully Tested</u>						
1. Lake Jukes	Mt. Jukes 88	Copper/hematite	Geological Mapping	Diamond Drilling	One hole drilled, one pending	D1
2. Nicholls	Nicholls Range 40SE	Copper	Mapping and Sampling	Electro-magnetic geophysical work	"Canso" work planned	05
3. Eagle Creek	Eagle Creek 243SE	Hematite/pyrite	Geological mapping, geochemical water testing	Electro-magnetic geophysical work	Helicopter electro- magnetic work planned	06, 9 and 12
4. Prince Darwin	Mt. Darwin South 12S	Copper/hematite/ magnetite	Geological mapping	Electro-magnetic work	Helicopter electro- magnetic survey commenced	015
5. Polias Cove	West side of Macquarie Harbour 20SW	Copper/hematite	Geological mapping, sampling, trenching	Diamond Drilling	One hole drilled, another pending	025
6. Birthday Creek <sup>M</sup>	West Coast 32SW	Copper/pyrite	Geological mapping	Electro-magnetic work	"Canso" work planned	
7. Diorite Creek	West Coast, 2 miles E. of Low Rocky Point 628	Pyrite/Copper	Geological mapping	Electro-magnetic work	"Canso" work planned	In 02

Name	Location	Type of Mineral	Type of Investigation	Recommendation	Follow-up on Recommendation	Report
<u>Prospects Tested</u>						
8. Espies <sup>M</sup>	Haglan Range 14E	Lead	Geological Mapping	No further work		G2
9. Andrew River	Andrew River 18SE	Iron staining	Geological Mapping	No further work		G3
10. Findons	Mt. Darwin North 10SSE	Copper/pyrite	Geological mapping, sampling, radiometric survey, geochemical survey.	No further work.		G7, G02
11. Balaclava River <sup>M</sup>	Balaclava River	Pyrite	Geological Mapping	No further work		G13
12. Edwards Gulch <sup>M</sup>	West Coast, below Cape Sorell. 20SW	Pyrite	Geological Mapping	No further work		G14
13. Strahan <sup>M</sup>	Queenstown-Strahan Road 9SW	Lead/pyrite	Geological mapping	No further work		G18
14. Fenders	Lewis River 6CS	Copper/pyrite	Geological mapping	No further work		G20
15. Gravelly Beach	West side of Macquarie Harbour 22SW	Chromite/magnetite	Geological mapping	No further work		G25
16. Birch Inlet	S end of the Inlet 26SEW	Weathered volcanic rock	Geological mapping, trenching	No further work		G25
17. Hubbs Hill <sup>M</sup>	Hubbs Hill, 13E	Pyrite	Geological mapping, sampling	No further work		G28

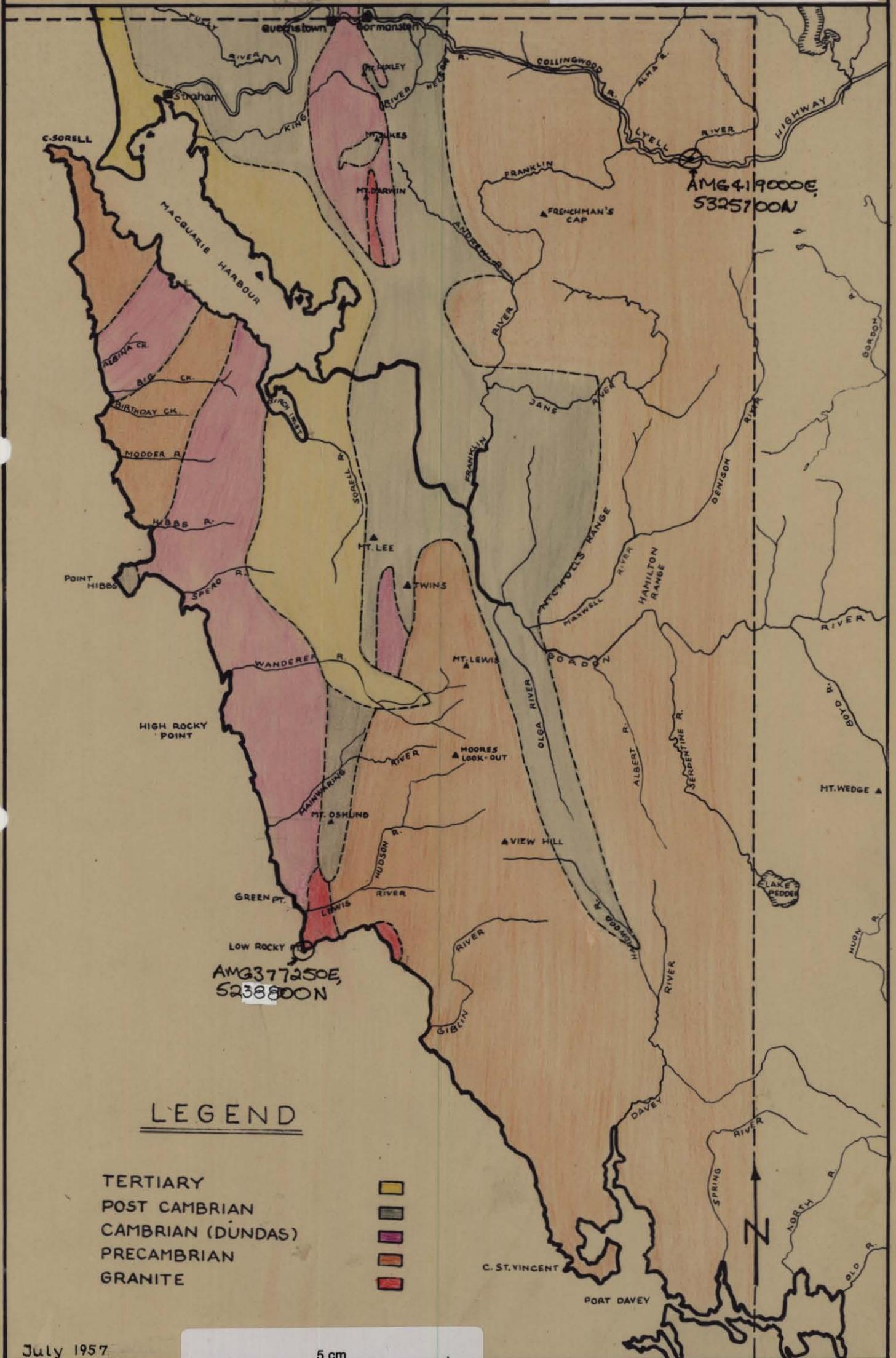
Name	Location	Type of Mineral	Type of Investigation	Recommendation	Follow-up on Recommendation	Report
18. East Darwin	East Darwin 9SE	Pyrite/copper	Geological mapping, sampling; ground geophysical work by D.M.R.	Preliminary verbal report - no further work		

D.M.R. \* - Day trip only, direct from Queenstown.

9SE = 9 miles south-east of Queenstown.

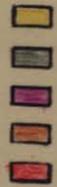
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AMG REFERENCE POINTS ADDED

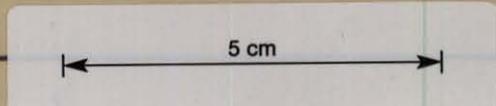


LEGEND

- TERTIARY
- POST CAMBRIAN
- CAMBRIAN (DUNDAS)
- PRECAMBRIAN
- GRANITE

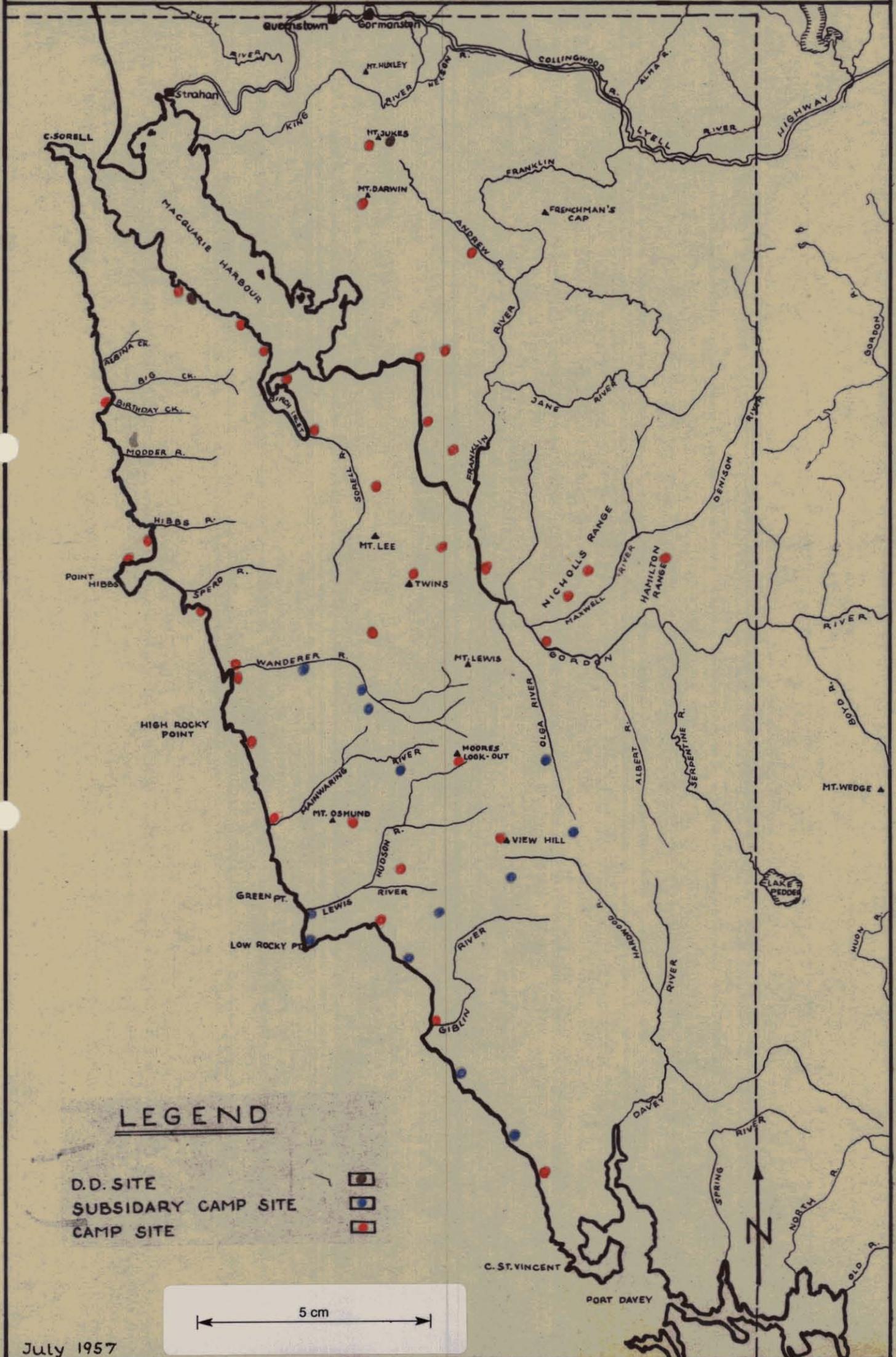


July 1957



L.E.E. P25B

SCALE:

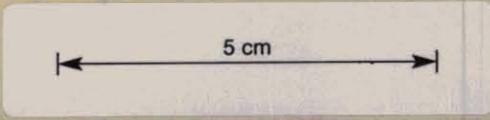
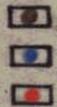


LEGEND

D.D. SITE

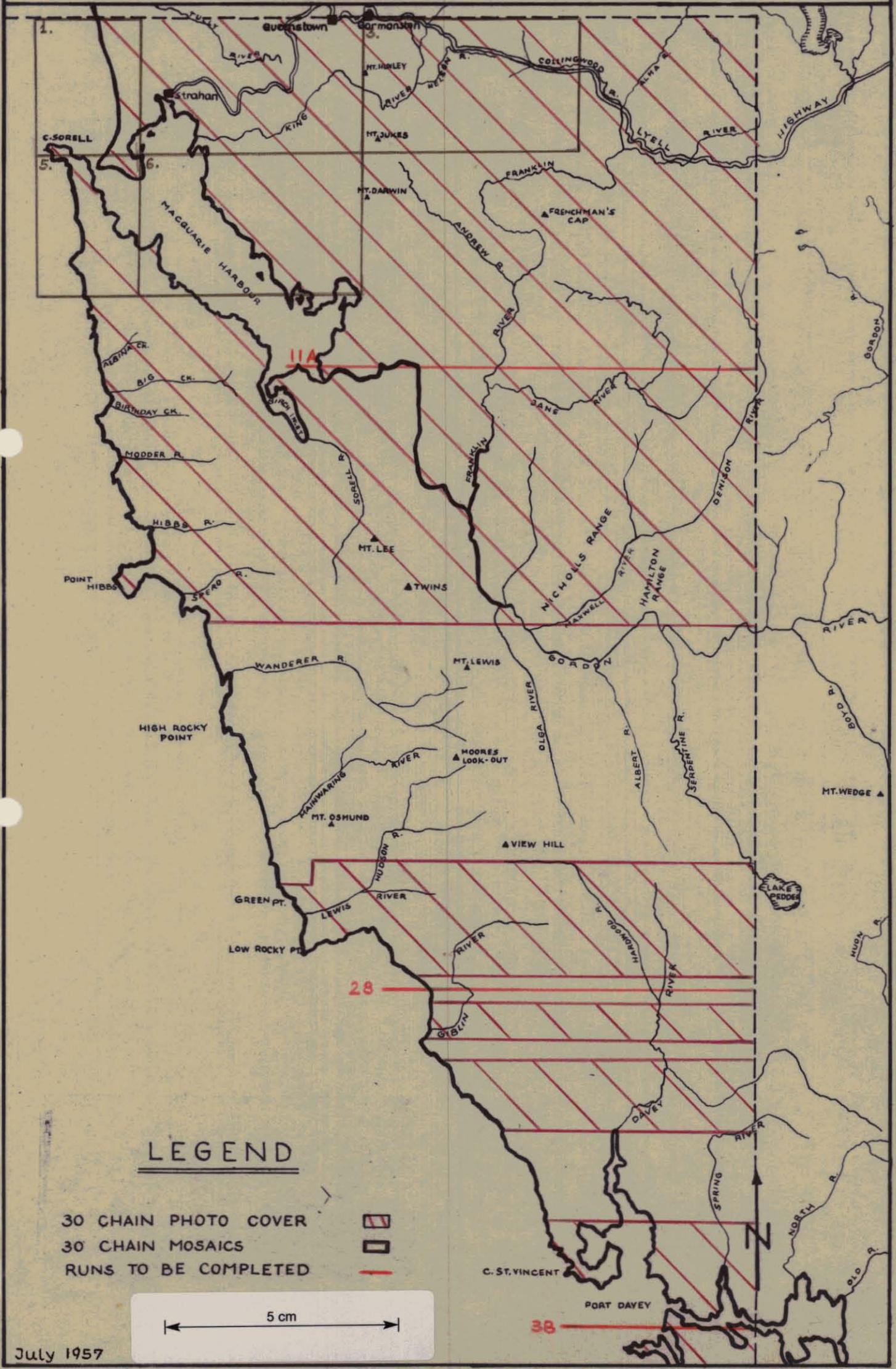
SUBSIDIARY CAMP SITE

CAMP SITE



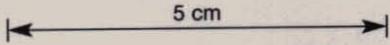
July 1957

SCALE 1



LEGEND

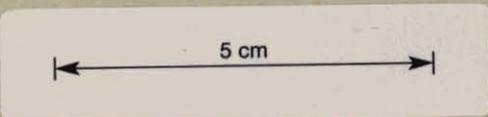
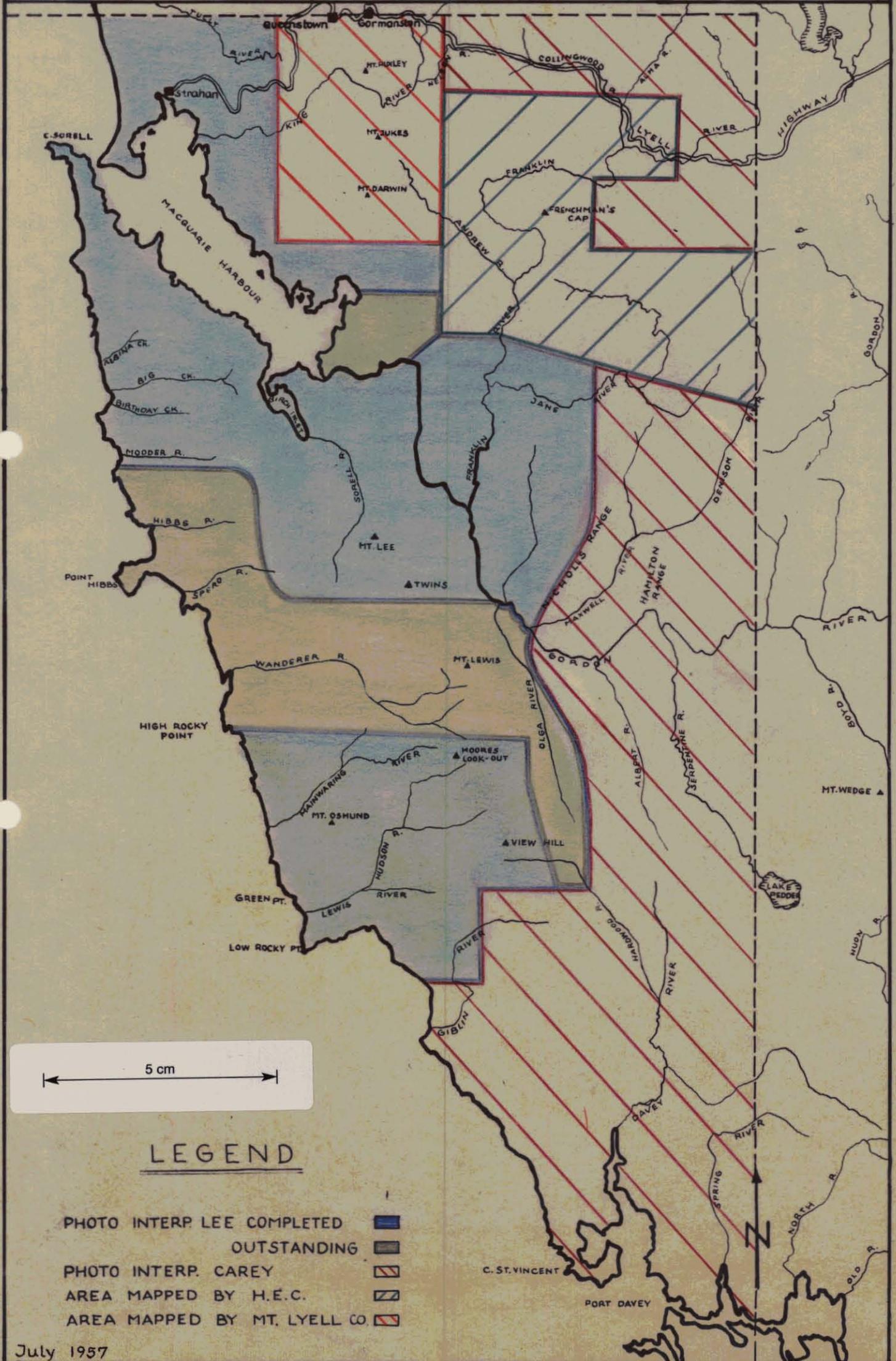
- 30 CHAIN PHOTO COVER
- 30 CHAIN MOSAICS
- RUNS TO BE COMPLETED



July 1957

L.E.E. P 25D

SCALE:



LEGEND

- PHOTO INTERP LEE COMPLETED 
- OUTSTANDING 
- PHOTO INTERP. CAREY 
- AREA MAPPED BY H.E.C. 
- AREA MAPPED BY MT. LYELL CO 

July 1957