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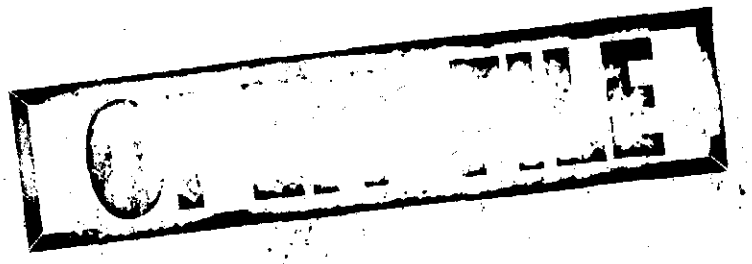
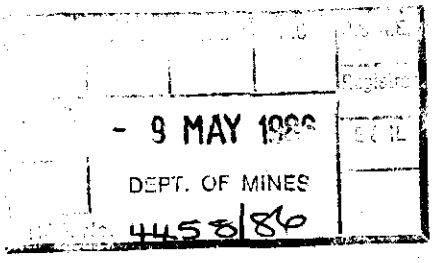
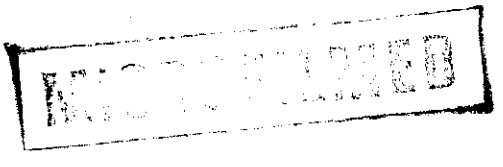




EXPLORATION LICENCE 27/79 (HAMILTON)

ANNUAL REPORT, YEAR 6,

17/4/85 - 16/4/86.



Petrecon Australia Pty. Ltd.

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EXPLORATION LICENCE 27/79 (HAMILTON)

ANNUAL REPORT YEAR 6

17/4/85 - 16/4/86

INTRODUCTION

Exploration Licence 27/79 was granted to Capricorn Mining Ltd. on the 17th of April 1980. The licence area originally covered 870km^2 of the middle reaches of the Derwent Valley (Fig.1) but after several relinquishments of non prospective acreage the area currently consists of two blocks totalling 221km^2.

During the past year an exemption from expenditure requirements was granted to Capricorn Mining Ltd. by The Department of Mines in view of the fact that poor market prospects for coal were preventing the development of the Langloh deposit and consequently there was no incentive to explore for further reserves. This situation is likely to remain in the near future.

Some work continued on the Langloh prospect during year 6. A dewatering test programme was conducted and an engineering study for the operation of a small open cut mine was completed. Negotiations with landowners and potential coal buyers have continued and a second project on shallow seismic reflection methods was conducted by a student from the Department of Geology, University of Tasmania.

DEWATERING TEST

A dewatering test programme was conducted on West Hill during January 1986 for the purpose of determining the potential for lowering the water table below the coal seams to allow dry mining.

Five 7" diameter holes were drilled to approximately four metres below the base of the coal. The borehole locations are shown on Fig.2. A submersible electric pump was installed in the central hole and water was drawn at a constant rate of 1200 gallons per hour for approximately six days. The water was carried by polypipe into a irrigation ditch and then into a holding dam. There was no recharging of the groundwater by leakage from the irrigation ditch. Drawdown was monitored

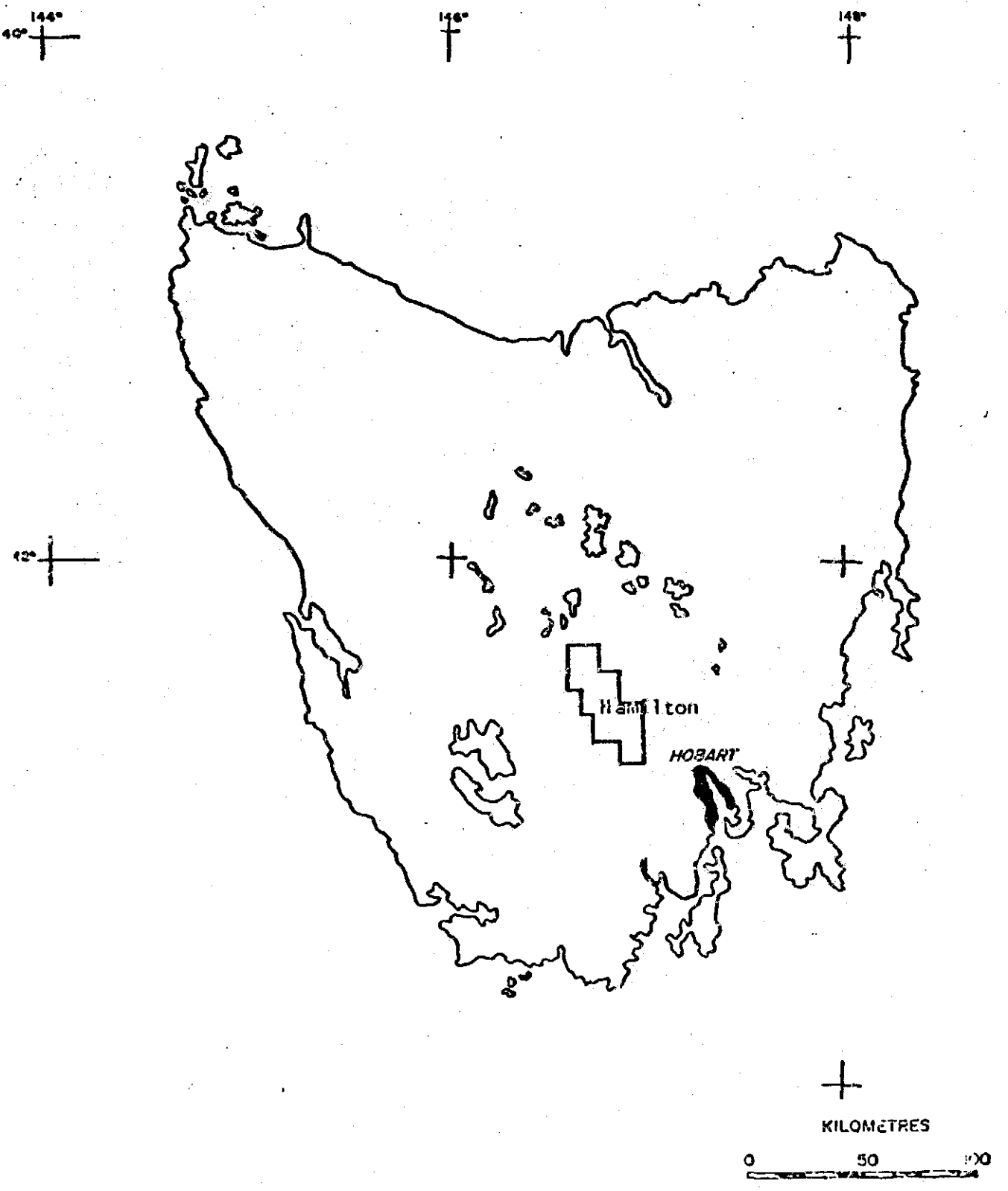

Fig. 1

Petrecon Australia Pty. Ltd.

5 cm

in the four observation holes, located at distances of 4,10,20 and 50 metres from the pump hole. The results of the test are shown in Appendix 1 and the main findings are summarised below.

1. The coal seams are the only significant aquifers with water being transmitted entirely through fracture permeability. The interburden shales act as seals and the overburden sandstone could not be induced to flow water using airlift from the drilling rig.

2. The coal aquifers have high-very high transmissivity, with drawdown observed in a test pit some 300 metres from the pump, and very low storage coefficients, with almost no recharge after several weeks.

3. Water quality is good, being completely free of visible sediment and readily drinkable, initally with a slightly salty taste, which diminished with time.

4. Between one and three borehole pumps would be ideal for dewatering ahead of an opencut mine and would eliminate the need to deal with dirty water in the pit and in settling ponds. Maintenance of the existing irrigation ditches and holding dams is desirable and the groundwater would be suitable for irrigation, stock water and dust suppression around the mine site.

MINE DESIGN STUDIES

A report has been completed by Kinhill Stearns of Adelaide demonstrating the engineering and economic viability of a small 10,000 to 20,000 tonnes per year operation on the West Hill block. A map showing the layout of this proposed operation is contained in Appendix 2. Although market interest in both the coal (for steaming) and the interburden shale (for brick making) is sufficiently high to justify a start to a small mine, to date no agreement has been reached with the landowners regarding the purchase of land involved and the associated owners rights to the coal.

SEISMIC RESEARCH

A BSc. Honours thesis entitled "Seismic Reflection Mapping of the Langloh Mine Workings " was submitted in February 1986 by Mr.Richard Brescianini, Geology Department, University of Tasmania. He was able to detect cavities caused by the early underground workings in East Hill and infer some fault displacement of the coal seams. The Geology Department is continuing this research project and another student has commenced work on the Langloh coal prospect for 1986.

EXPENDITURE FOR YEAR 6

The following statement covers exploration expenditure for the year ending 16/4/1986.

TLX : 867
DATE : 6.5.1986

ATTN : KEN MORRISON

RE : CAPRICORN MINING LIMIED
STATEMENT OF EXPLORATION EXPENDITURE
COAL EXPLORATION LICENCE EL 27/79
12 MONTHS ENDED 16.4.1986

1ST QUARTER ENDED 16.7.1985

PETRECON AUST.	GENERAL GEOLOGICAL	8,105
COMPANY ADMINISTRATION OVERHEAD AND TRAVELLING		6,000
		14,105

2ND QUARTER ENDED 16.10.1985

PETRECON AUST.	GENERAL GEOLOGICAL	1,686
MINES DEPT.	LICENCE FEE	2,210
COMPANY ADMINISTRATION		6,000
		9,376

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3RD QUARTER ENDED 16.1.1986

PETRECON AUST.	GENERAL GEOLOGICAL	2,568
KINHILL STEARNS	MINE PLANNING	3,375
COMPANY ADMINISTRATION		6,000
		11,943

4TH QUARTER ENDED 16.4.1986

PETRECON AUST	GENERAL GEOLOGICAL	8,991
KINHILL STEARNS	MINE PLANNING	11,286
H.J.STACKPOOL	DRILLING	4,877
ENVIRONMENTAL + TECHNICAL SERVICES	ENVIRONMENTAL CONTROLS	2,034
COMPANY ADMINISTRATION		6,000
		33,188

TOTAL $69,130

CAPRICORN MINING LIMITED
D.B.HILL
SECRETARY

007

86-2545

034008

WILLIAM C CROMER PTY. LTD.

Consulting Geologists and Log Analysts

Surveying Consultants :
CROMER AND CERUTTY PTY LTD
Authorised Surveyors

Office and postal address :
192 MACQUARIE STREET, HOBART, TAS. 7000

TELEPHONE (002) 31 0656 - 27 8970 (A.H.)

31 January, 1986

Memo. to J.K.Davidson,
Petrecon (Aust.) Pty. Ltd.,
192 Macquarie St.

Re: Langloh Coal Mine; Pump Test results.

Ken Morrison has details of pump size, bore hole depths and logs, and pump rate. Copies of pump test results are attached, but basically the bore was pumped at a constant 1200 galls/hr ($130m^3$/day) for 8878 mins. (6.2 days) during which time drawdowns were also measured in four observation bores at 4,10,20 and 50m from the pump hole.

RESULTS.

Maximum drawdown in the pumped bore was 2.285m; minimum drawdown was 1.720m in the furthest observation bore. Drawdowns in all observation bores approached a similar amount, indicating that the cone of depression was large and shallow, extending at least over the proposed mining area. Fig.1 Shows drawdown vs. time for the pumped and furthest observation bore plotted on log-log paper. (Drawdowns for the other observation bores plot within this envelope).

The aquifer (principally coal beds with some contribution from the overlying fractured sandstone) has a transmissivity of $60m^2$/day, and a typical confined aquifer storage co-efficient of $1x10^{-4}$.

In Fig.1 long term drawdown for the pumped and neighbouring observation bores is about 7.5-8m after 100,000 mins. (70 days) pumping at $130m^3$/day. For an approximate drawdown of 12m needed to dewater the coal beds, about 250,000-300,000 mins. (174-208 days) is needed. These are probably maximum figures and assume no boundary effects alter the drawdown curve.

Drawdown in confined aquifers is directly proportional to pump rate, so that 12m dewatering at (say) $260m^3$/day could be accomplished in about 100 days. Individual bores could probably sustain this pump rate, although higher rates may locally dewater the aquifer near the pump bore and produce air.

CONCLUSIONS.

1. It is possible to lower the regional water table over the proposed mine area below the excavation depth by pumping from the existing bores.

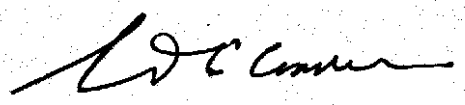
2. The present pump rate of 130m^3/day may be too low to be cost efficient.

3. Higher groundwater extraction rates can be accomplished either by,
   (i) Installing a larger pump in the existing bore, or
   (ii) Installing extra pumps in the adjacent observation bores.

4. Option 3 (ii) is probably the most flexible and efficient. By pumping at 500m^3/day from two observation bores a 12m dewatering effect throughout the mine could be achieved in about 50 days.

5. These conclusions are based on a preliminary assessment of data, and should be regarded as approximate. Nethertheless they demonstrate the possibility of mine dewatering from a small number of bores pumped continuously at low rates. Enough data are available to predict the dewatering effect of any number of configurations of bores pumping at various pump rates.

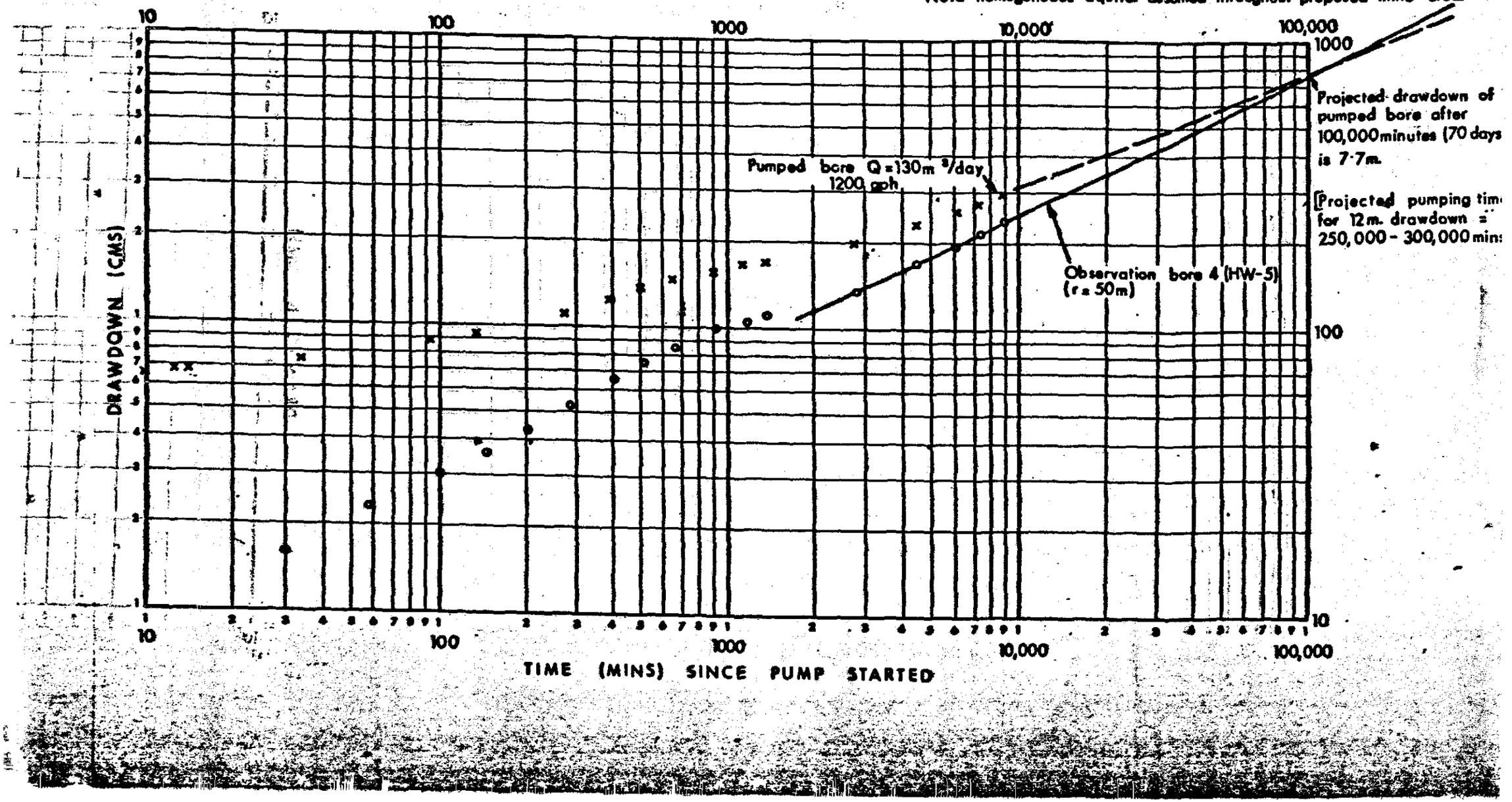
W.C.Cromer.



Time - Drawdown Plot, Langloh Mine

TRANSMISSIVITY = 60 m²/day (4000 gpd/ft)
STORAGE COEFFICIENT = 10^{-4}

Note: homogeneous aquifer assumed throughout proposed mine area.



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LANGLOH DEWATERING TEST

TO: = 10.30AM 12/1/86

OHW5

OHW4 OHW1 OHW2

OHW3

HW1 - HW2 = 4 mts
HW1 - HW3 = 10 mts
HW1 - HW4 = 20 mts
HW1 - HW5 = 50 mts

	HW1	HW2	HW3	HW4	HW5
True Water Depth in Holes	11.125	11.380	11.200	10.075	9.950 mts

HW1		HW2		HW3		HW4		HW5	
Time (mins)	Drawdown (cms)	Time	Drawdown	Time	Drawdown	Time	Drawdown	Time	Drawdown
1	54.5								
2	57.5								
3	59.5								
4	60.5								
5	62.5								
6	62.5								
7	63.5								
8	63.5								
9	64.5								
10	65.5								
11	65.5								
12	67.0								

HW1		HW2		HW3		HW4		HW5	
Time (mins)	Drawdown (cms)	Time	Drawdown	Time	Drawdown	Time	Drawdown	Time	Drawdown
13	67.5								
14	67.5	23	26	25	16	26	145	30	16
34	72.5	36	29	38	20	40	19.5	58	23
96	86.5	96	40	98	31	99	30.5	101	30
138	91.5	140	46	141	38	144	36.5	147	36
193	98.5	194	52	197	45	198	44	201	43.5
279	109.5	282	72	28	54	285	62.5	287	52.5
398	121.5	399	75	401	67	403	65.5	406	65
516	133.5	518	86.5	519	77	520	76.5	522	75
658	143.5	659	97	660	88	661	87	665	84
926	136.5	928	110	931	101	931	99.5	934	97.5
1185	164	1186	118	1189	108	1190	108.5	1194	105.5
1395	168.5	1396	122	1399	113	1400	112.5	1403	110
2820	197.5	2821	152	2824	141	2826	141.5	2828	139
4453	228.5	4455	185	4457	176	4460	175.5	4463	172
6090	255.5	6092	210	6094	202	6096	201.5	6098	198
7409	274.5	7414	230	74.7	221	7419	218.5	7422	217
8878	296.5	8880	252	8882	247	8883	240.5	8884	240

012

10m - OVERBURDEN LINE

DIRECTION OF ADVANCE OF COAL & OVERBURDEN FACES

OLD U/GROUND MINING AREA

WESTHILL MINING AREA

COAL STOCKPILE

GENERAL TREND OF FACES AFTER DEVELOPMENT (YEAR - 0.5)

PORTABLE CRUSHING AND SCREENING PLANT

EXISTING TRACK

OVERBURDEN FACE

COAL FACE

WEIGHBRIDGE

MAIN MINE ACCESS ROAD

KIMBOLTON

CLEAN SHALE STOCKPILE

MIXED SHALE STOCKPILE

OVERBURDEN DUMP AREA

CURRINGA-I

CURRINGA-II

WESTFIELD

LYELL HIGHWAY

LYNDALL

LANGLOH ROAD

LANGLOH

EAST HILL MINING AREA

MINE EXTENSION

HEC - LINES

0750

0500

0250

53 0000 N

9750

9500

9250

9000

8750

52 8500 N

48 1500 E

1750

2000

2250

2500

2750

48 2000 E

3250

3500

3750

4000

4250

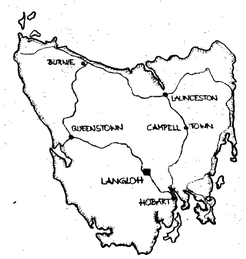
48 4500 E

0 100m 200m 300m 400m 500m

SCALE

PLAN VIEW

LANGLOH MINING AREA - TASMANIA



KEY PLAN

ISSUE
18 MAR 1986
035013

5 cm

Code	Issued for	Issue approval	Date

Issues and Approvals

Code	Date	Description	Approval

Amendments and Approvals

KINHILL STEARNS
ENGINEERS
ADELAIDE, BRISBANE, DARWIN, MELBOURNE, PERTH, SYDNEY.

Designed	Checked	Technical Approval
Drawn E. BAMMINGER	Checked	Date 14/1/1986

CAPRICORN MINING LTD.
LANGLOH COAL PROJECT.
MINING BLOCK SCHEDULE
SOUTH - NORTH DEVELOPMENT

North Point	Scale	Drawing Number	Amend Code
	1 : 5000	A85 393 - 25.05.0001	

B1 FRAME 687 x 944

86-2545