

CR 68/31

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IMC DEVELOPMENT CORPORATION

ANNUAL REPORT - P.A. 1766 (ALEXANDRIA)
(Period: May 19, 1967-May 18, 1968)

The attached map shows the location of the eight holes drilled on P.A. 1766 during the period of tenure.

The lithologic data, their stratigraphic interpretation, and assay data which are also attached, were previously described in monthly reports and in "Progress Report on Prospecting Authorities 1766, 1788, 1801, 1802 and 1897 in the Alexandria Region" by J. Barrie and submitted on April 5, 1968.

The latter report contains comprehensive data on the region which IMC Development Corporation is studying as a single unit rather than as individual Prospecting Authorities. Plates include a 1:250,000 geologic map, a 1:500,000 gravity feature map, a 1:500,000 lithofacies map and structure map and, finally, two geologic sections.

OPEN FILE

LOG OF LITHOLOGIC AND ASSAY DATA

DRILLHOLE No. A1	LOCATION	Prospecting Authority 1766	T.D 125'
Date Started 23/4/67	Co-ordinates See attached map		Elevation
Date Completed 23/4/67	1 : 250,000 SHEET (NAME & NUMBER)	Ranken SE53-16	Sheet <u>1</u> of <u>1</u>

INTERVAL	LITHOLOGIC DESCRIPTION
0-12½'	Soil and coarse sand with abundant ironstone.
12½-70'	Siltstone and some clayey siltstone. Quartz grains at 35'. Chert and ironstone at 55'. Micaceous from 57½-70'.
70-82½'	Quartzite and sandy siltstone. Chert at base.
82½-92½'	Silicified fine grained sandstone.
92½-100'	Siltstone, ironstone and chert.
100-112½'	Siltstone, sandy and mottled. Micaceous at 112½'.
112½-120'	Quartzite with chert.
120-125'	Siltstone.
<u>Stratigraphic Interpretation</u>	
0-12½'	Quaternary.
12½-125'	Burton Beds (B.M.R. Mapping).
<u>Assay Data</u>	
Sample	% P ₂ O ₅
95-100'	0.5
100-105'	0.6
105-110'	0.6

LOG OF LITHOLOGIC AND ASSAY DATA

DRILLHOLE No.	A2	LOCATION	Prospecting Authority 1766	T.D	80'
Date Started	23/4/67	Co-ordinates	See attached map	Elevation	
Date Completed	23/4/67	1: 250,000 SHEET (NAME & NUMBER)	Ranken SE53-16	Sheet	1 of 1

INTERVAL	LITHOLOGIC DESCRIPTION
0-10'	Soil and clay siltstone.
10-30'	Siltstone, fine sand, some ironstone.
30-47½'	Sandstone, some small heavily ironstained pebbles.
47½-80'	Siltstone with clay pellets, some quartz grains.
<u>Stratigraphic Interpretation</u>	
0-10'	Quaternary.
10-80'	Tertiary over Burton Beds (B.M.R. Mapping).

LOG OF LITHOLOGIC AND ASSAY DATA

DRILLHOLE No. A3	LOCATION Prospecting Authority 1766	T.D. 122'6"
Date Started 23/4/67	Co-ordinates See attached map	Elevation
Date Completed 23/4/67	1: 250,000 SHEET Ranken (NAME & NUMBER) SE53-16	Sheet 1 of 1

INTERVAL	LITHOLOGIC DESCRIPTION		
0-7½'	Soil, clay, silt and gypsum.		
7½-17½'	Siltstone, micaceous.		
17½-40'	Fine-grained sandstone with varying chert.		
40-50'	Siltstone, coarse-grained, micaceous.		
50-62½'	Fine-grained sandstone.		
62½-77½'	Coarse-grained siltstone, some mica?		
77½-122½'	Very fine-grained sandstone, chert with oolites.		
<u>Stratigraphic Interpretation</u>			
0-7½'	Quaternary.		
7½-122½'	Tertiary over Burton Beds (B.M.R. Mapping).		
<u>Assay Data</u>			
Sample	% P ₂ O ₅	Sample	% P ₂ O ₅
95-97½'	0.9	110-112½'	2.4
97½-100'	1.0	112½-115'	1.1
100-102½'	0.6	115-117½'	1.8
102½-105'	0.6	117½-120'	7.1
105-107½'	0.5	120-122½'	6.3
107½-110'	2.2		

LOG OF LITHOLOGIC AND ASSAY DATA

DRILLHOLE No. A4	LOCATION	Prospecting Authority 1766	T.D 97'6"
Date Started 23/4/67	Co-ordinates	See attached map	Elevation
Date Completed 23/4/67	1: 250,000 SHEET (NAME & NUMBER)	Ranken SE53-16	Sheet...1. of...1.

INTERVAL	LITHOLOGIC DESCRIPTION			
0-10'	Soil and clay with gypsum.			
10-20'	Siltstone with coarse quartz sand grains.			
20-25'	Sand, silt with dark rounded chert pebbles.			
25-60'	Siltstone, iron rich in parts, chert, some dark oolites in some chert.			
60-67½'	Fine-grained silicified sandy siltstone.			
67½-87½'	Siltstone with abundant chert possibly as pebbles or lenses.			
87½-97½'	Siltstone.			
<u>Stratigraphic Interpretation</u>				
0-10'	Quaternary.			
10-97½'	Burton Beds (B.M.R. Mapping).			
<u>Assay Data</u>				
Sample	% P ₂ O ₅	Sample	% P ₂ O ₅	
60-62½'	0.4	77½-80'	0.7	
62½-65'	0.3	80-82½'	3.2	
65-67½'	0.8	82½-85'	2.6	
67½-70'	1.1	85-87½'	2.3	
70-72½'	1.9	87½-90'	1.7	
72½-75'	2.4	90-92½'	2.2	
75-77½'	1.6			

LOG OF LITHOLOGIC AND ASSAY DATA

DRILLHOLE No. A5	LOCATION	Prospecting Authority 1766	T.D 47'6"
Date Started 24/4/67	Co-ordinates See attached map		Elevation
Date Completed 24/4/67	1: 250,000 SHEET (NAME & NUMBER)	Ranken SE53-16	Sheet 1 of 1

INTERVAL	LITHOLOGIC DESCRIPTION
0-7½'	Soil, billy pebbles, siltstone.
7½-25'	Siltstone, chert, sandstone and quartzite.
25-37½'	Chert, fine-grained sandstone. Very small oolites in chert.
37½-47½'	Chert, fine-grained sandstone, quartzite, ferruginous at base.
<u>Stratigraphic Interpretation</u>	
0-7½'	Quaternary.
7½-47½'	Burton Beds (B.M.R. Mapping).
<u>Assay Data</u>	
Sample	% P ₂ O ₅
25-30'	1.0
30-35'	2.4
35-40'	1.6
40-45'	1.9
45-47½'	1.6

LOG OF LITHOLOGIC AND ASSAY DATA

DRILLHOLE No. A6	LOCATION Prospecting Authority 1766	T.D 180'
Date Started 30/10/67	Co-ordinates See attached map	Elevation
Date Completed 30/10/67	1: 250,000 SHEET Ranken (NAME & NUMBER) SE53-16	Sheet 1 of 1

INTERVAL	LITHOLOGIC DESCRIPTION
0-5'	Soil, clayey.
5-29'	Mottled clay.
29-40'	Sand and clay.
40-52'	White siltstone, slightly sandy at top.
52-67½'	White limestone, some black chert.
67½-122½'	Alternating thin limestone and siltstone beds.
122½-150'	Calcareous siltstone.
150-157½'	Thin alternating limestone and siltstone.
157½-160'	Calcareous siltstone.
160-177½'	Siltstone, very clayey, ?clay bands blocking drill bit, harder in part, calcareous.
177½-180'	Limestone.

Stratigraphic Interpretation

0-5'	Quaternary.
5-180'	Tertiary over Burton Beds (B.M.R. Mapping).

Assay Data

Sample	% P ₂ O ₅	Sample	% P ₂ O ₅	Sample	% P ₂ O ₅
75-77½'	0.5	110-112½'	1.0	145-147½'	6.2
77½-80'	0.5	112½-115'	0.5	147½-150'	2.4
80-82½'	0.5	115-117½'	0.8	150-152½'	3.0
82½-85'	<0.5	117½-120'	0.6	152½-155'	2.4
85-87½'	<0.5	120-122½'	1.0	155-157½'	1.2
87½-90'	<0.5	122½-125'	3.2	157½-160'	0.6
90-92½'	<0.5	125-127½'	2.0	160-162½'	0.5
92½-95'	<0.5	127½-130'	2.0	162½-165'	0.6
95-97½'	<0.5	130-132½'	1.2	165-167½'	2.2
97½-100'	<0.5	132½-135'	1.0	167½-170'	1.4
100-102½'	<0.5	135-137½'	1.0	170-172½'	0.6
102½-105'	<0.5	137½-140'	0.8	172½-175'	0.8
105-107½'	<0.5	140-142½'	1.4	175-177½'	0.6
107½-110'	0.6	142½-145'	3.0	177½-180'	0.5

LOG OF LITHOLOGIC AND ASSAY DATA

DRILLHOLE No. A7	LOCATION	Prospecting Authority 1766	T.D 145'6"
Date Started 31/10/67	Co-ordinates See attached map		Elevation
Date Completed 31/10/67	1: 250,000 SHEET (NAME & NUMBER)	Ranken SE53-16	Sheet...1... of...1...

INTERVAL	LITHOLOGIC DESCRIPTION					
0-2½'	Soil, clayey.					
2½-14½'	Mottled clay.					
14½-52½'	Clayey limestone crystalline in places with abundant black staining, some thin siltstone beds.					
52½-57½'	Duricrust? with chert and quartz grains.					
57½-145½'	Siltstone, sandy in parts with varying amounts of chert.					
<u>Stratigraphic Interpretation</u>						
0-2½'	Quaternary.					
2½-145½'	Tertiary over Burton Beds (B.M.R. Mapping).					
<u>Assay Data</u>						
	Sample	% P ₂ O ₅	Sample	% P ₂ O ₅	Sample	% P ₂ O ₅
	20-22½'	0.23	102½-105'	0.30	125-127½'	1.33
	22½-25'	0.27	105-107½'	0.44	127½-130'	1.35
	25-27½'	0.21	107½-110'	0.39	130-132½'	1.11
	27½-30'	0.25	110-112½'	0.25	132½-135'	1.04
	90-92½'	0.04	112½-115'	0.13	135-137½'	0.96
	92½-95'	0.10	115-117½'	0.10	137½-140'	1.15
	95-97½'	0.90	117½-120'	2.09	140-142½'	0.92
	97½-100'	0.96	120-122½'	1.42	142½-145'	0.79
	100-102½'	0.54	122½-125'	1.11	145-145½'	0.66

LOG OF LITHOLOGIC AND ASSAY DATA

DRILLHOLE No. A8	LOCATION Prospecting Authority 1766	T.D 82'6"
Date Started 31/10/67	Co-ordinates See attached map	Elevation
Date Completed 31/10/67	1: 250,000 SHEET Ranken (NAME & NUMBER) SE53-16	Sheet 1 of 1

INTERVAL	LITHOLOGIC DESCRIPTION
0-2½'	Brown clayey soil.
2½-17½'	Mottled clay.
17½-72½'	Siltstone containing brown pelletal chert, finer grained towards bottom. Biconulites in cuttings. Siliceous coquina at 70'.
72½-82½'	Dolomite and dolomitic limestone with chert.
<u>Stratigraphic Interpretation</u>	
0-2½'	Quaternary.
2½-82½'	Burton Beds (B.M.R. Mapping).
<u>Assay Data</u>	
Sample	% P ₂ O ₅
60-62½'	0.32
62½-65'	0.49
65-67½'	0.55
67½-70'	0.49
70-72½'	0.19
72½-75'	0.21
75-77½'	0.18
77½-80'	0.23
80-82½'	0.26

GAMMA LOGS

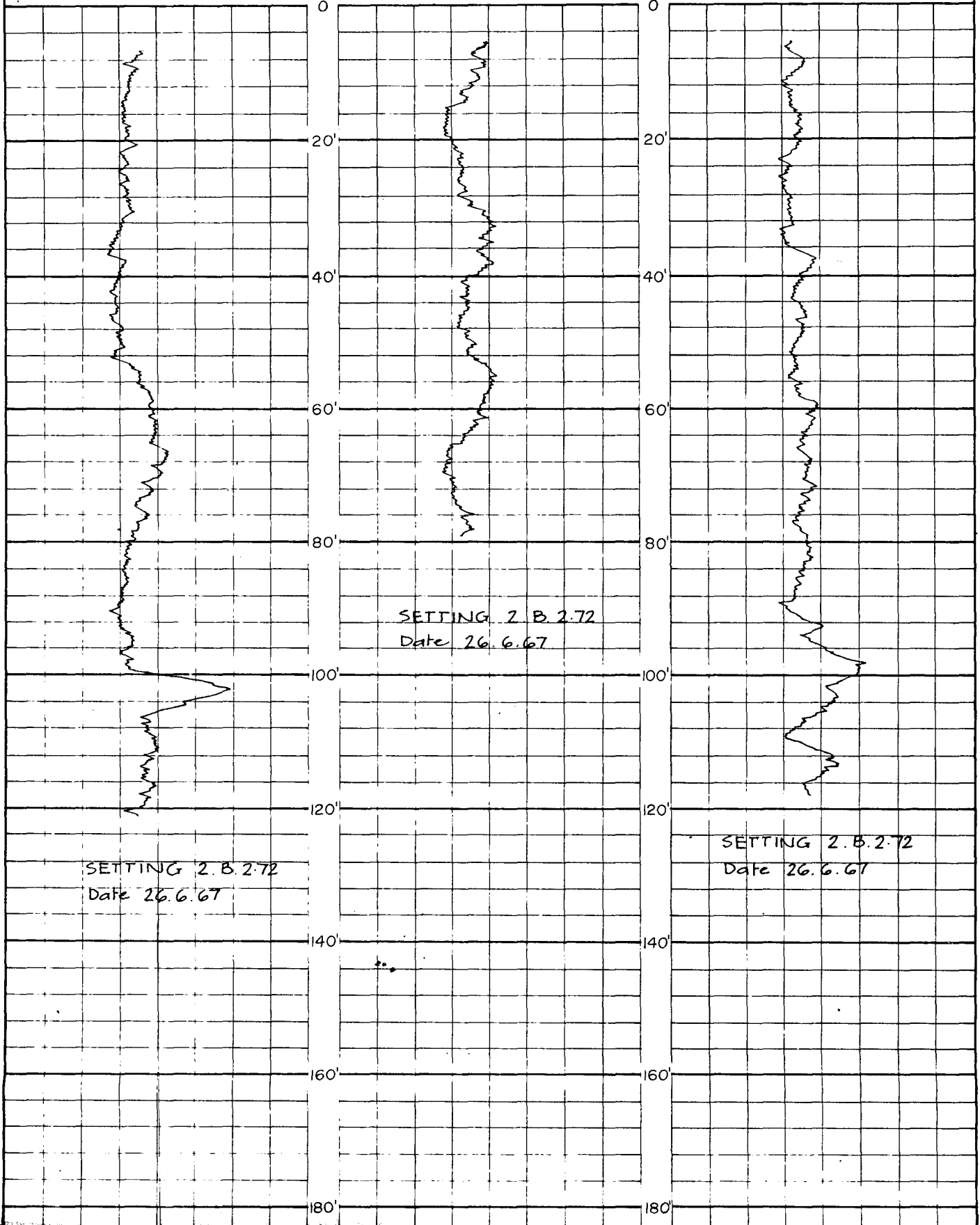
PROSPECTING AUTHORITY No. 1766

Instrument : Well Reconnaissance Geo-Logger

HOLE A 1

HOLE A 2

HOLE A 3

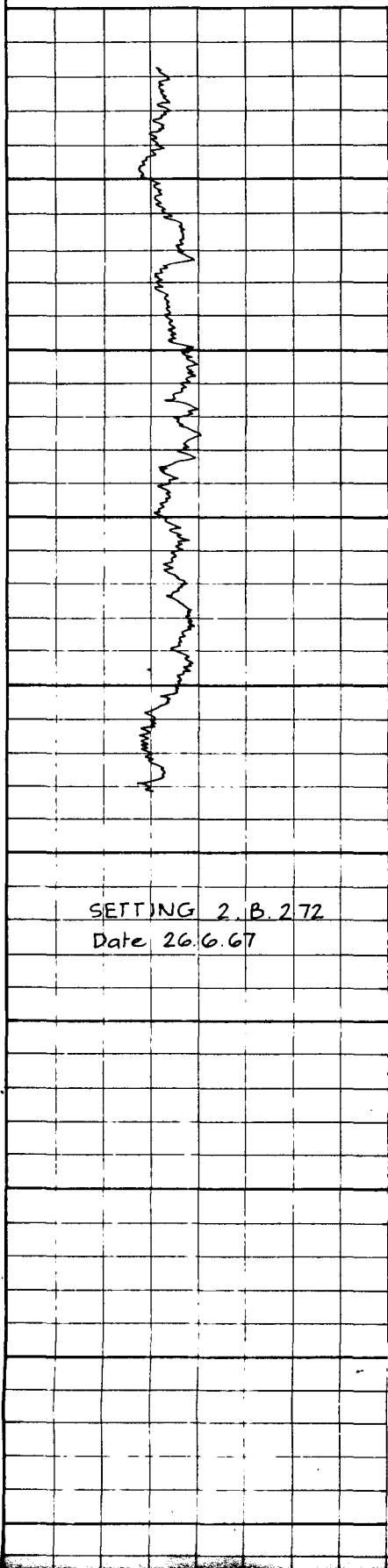


GAMMA LOGS

PROSPECTING AUTHORITY No. 1766

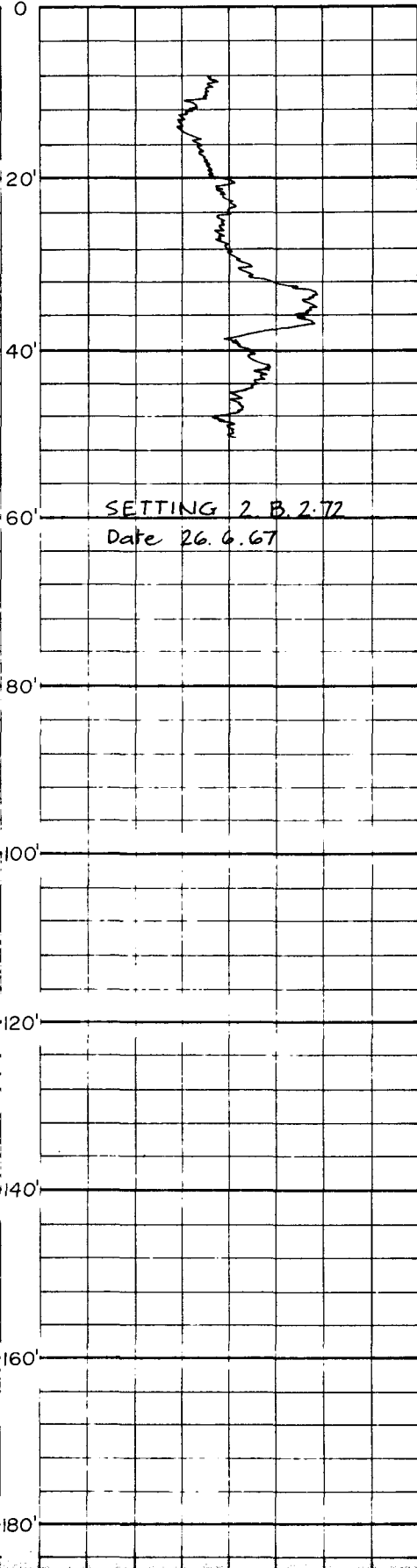
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HOLE A4



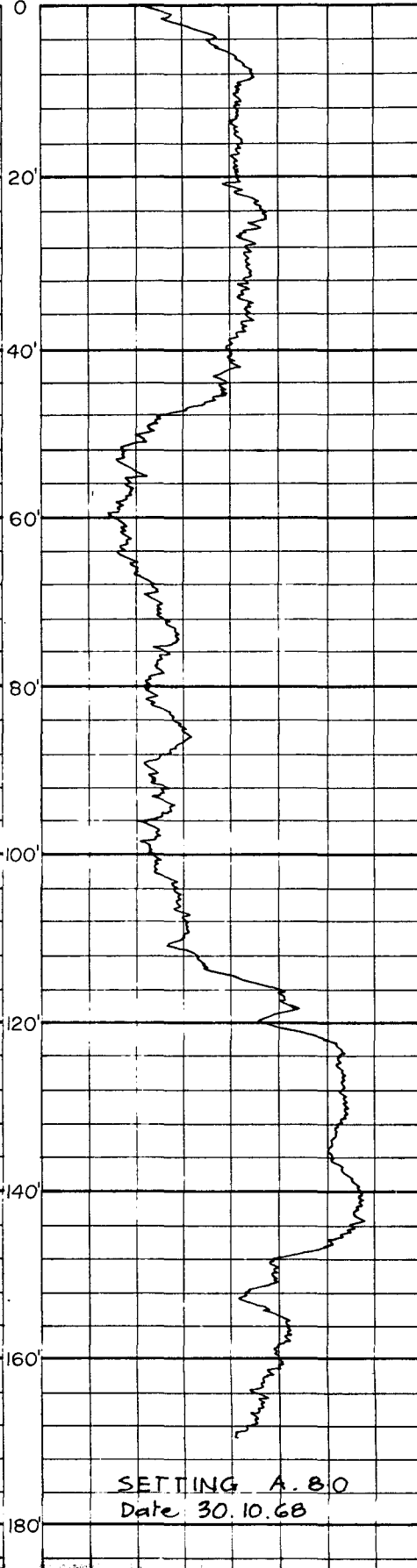
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HOLE A5



SETTING 2.B.272
Date 26.6.67

HOLE A6



SETTING A.80
Date 30.10.68

GAMMA LOGS

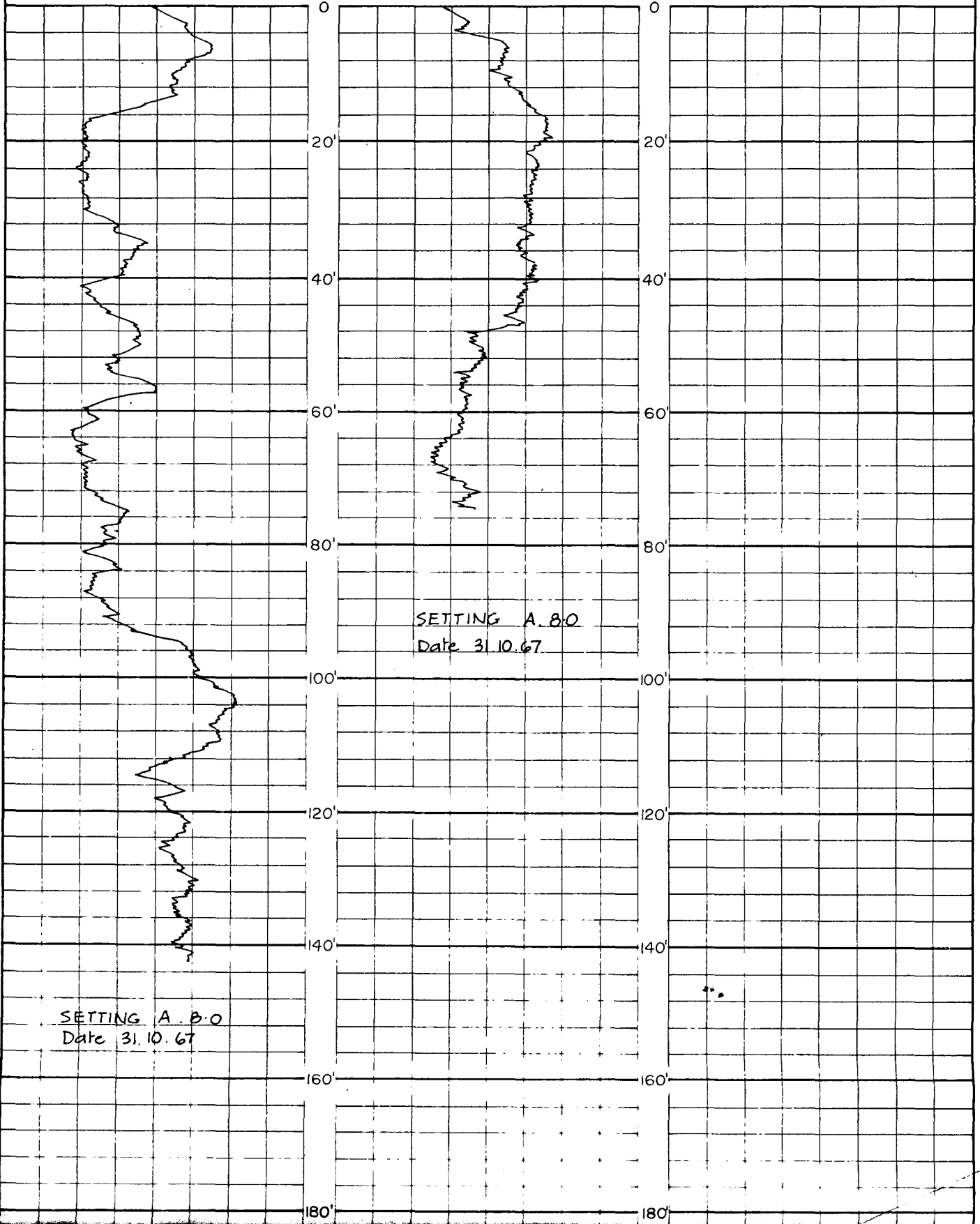
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Instrument : Well Reconnaissance Geo-Logger

HOLE A7

HOLE A8

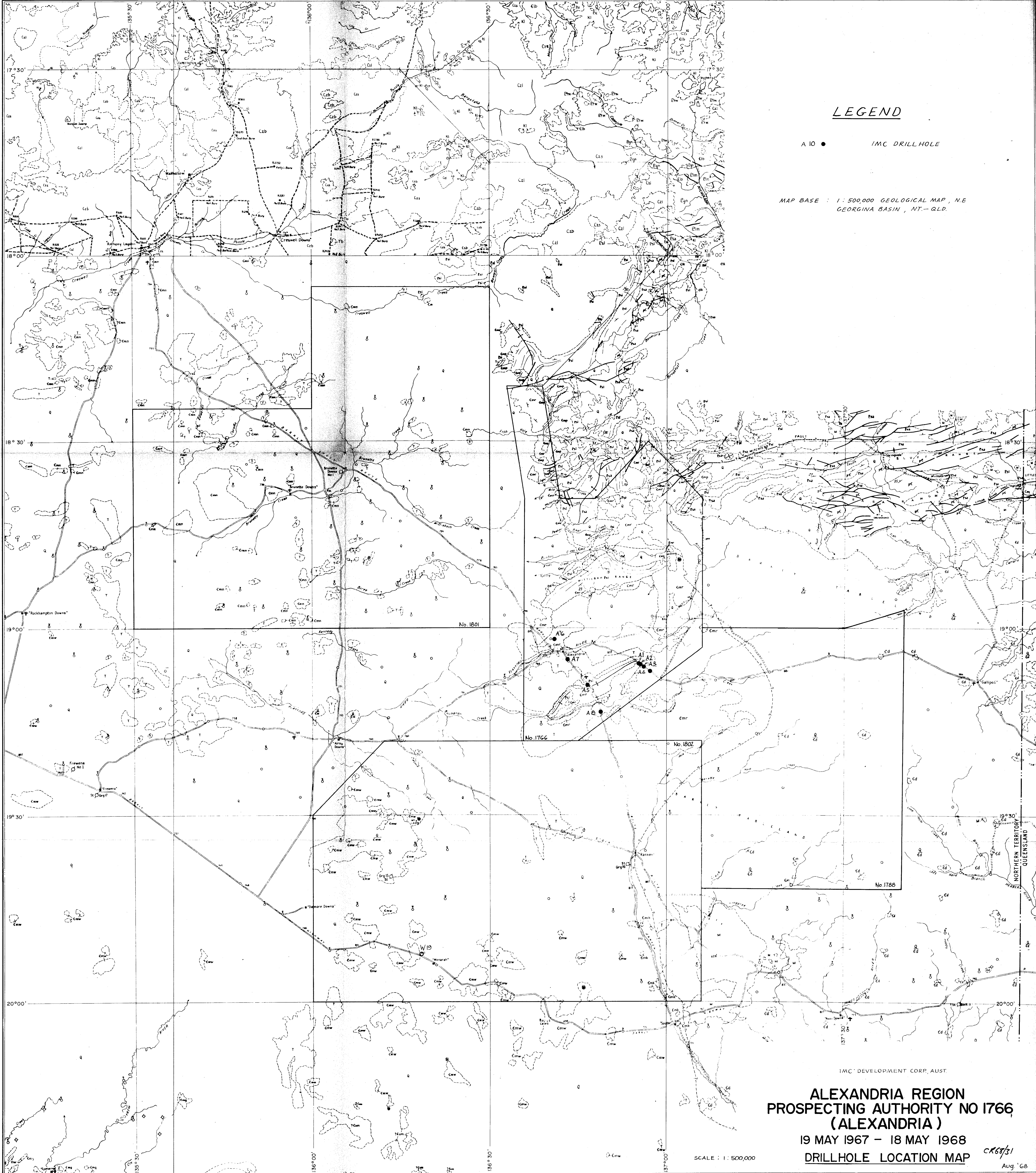
HOLE



LEGEND

A 10 ● IMC DRILLHOLE

MAP BASE : 1 : 500,000 GEOLOGICAL MAP , N.E
GEORGINA BASIN , NT. - Q.L.D.



IMC DEVELOPMENT CORP, AUST
**ALEXANDRIA REGION
PROSPECTING AUTHORITY NO 1766
(ALEXANDRIA)**
19 MAY 1967 - 18 MAY 1968
DRILLHOLE LOCATION MAP

SCALE : 1 : 500,000

CR68/31
Aug '68