

REPORT ON GROUNDWATER PROSPECTS.WATER AND RIVERS  
COMMISSIONRESOURCE  
INVESTIGATIONS  
DIVISION

LIBRARY

SHELF/CABINET No:

ITEM No:

NOT FOR LOAN

NicholsonSturt CreekFlora ValleyGordon Downs Stations

These four properties were visited from  
9-19th July, 1964.

Requirements:

Further drilling is proposed under the Kimberley  
Subsidy Watering Points Scheme, and advice was asked for in  
the selection of bore sites.

General:

A number of bore sites had previously been selected  
and pegged by Geologist K. Morgan of the Geological Survey,  
but some of these were not known to the present station  
people, and other areas were also in need of water. The  
present proposed bore sites, which were discussed with and  
indicated to Mr. Ringler, are shown on the attached plan.

The following schedules show for each station the  
existing bores, and the proposed drilling sites. The  
original reference numbers allotted by Morgan have been  
altered as shown.

Nicholson StationExisting Bores:

<u>Name</u>	<u>Depth</u>	<u>Remarks</u>
Homestead Bore	-	-
No.8 Bore (Koolerong)	790' deep	1500 gph
No.9 Bore	350'	1200 gph

No.23 Bore 145' 1600 gph  
 No.10 Bore Turner Station  
 O.T.P. Kirkimbie Station N.T.

Dud or abandoned bores or wells: (see plan)

N5	194'	poor supply
No.25	unknown	salt water
Salt bore	"	salt water
Bore near Sugar Bag yard	"	Hard drilling
Clean Skin Creek Bore	"	" "
Bull Creek Bore	"	" "
Lighthouse Creek Bore	"	" "

Proposed bore sites: (see plan)

Previous Site No.	New No.	Nearest Geographic Feature	Suggested Max.depth	Rock Formation
N.K.M.1*	N.X.1	-	500'	Antrim Plateau Volcanics
" 2	N.X. 2	Six mile Creek	500'	"
" 3	N.X. 3	Calico Creek	500'	"
" 4	not required			"
" 5	"	"		"
" 6	N.X. 4	Bull Creek	500'	"
J	not required			"
-	N.X. 5	Lighthouse Creek	500'	"
-	N.X. 6	Thompson Creek	500'	"
-	N.X. 7	Turtle Creek	500'	"
-	N.X. 8	Near Sugar Bag Yard	500'	"

\* Reported as N.M.1 in G.S.S.A. Record 12/1963.

GORDON DOWNS STATION

Existing Bores:

Name	Depth (feet)	Comments
No.7	495	1400 galls/hour
No.12	395	850 galls/hour
No.13	564	1000 galls/hour
No.14b	285	1200 galls/hour
No.15	83	2000 galls/hour
GA	86	1320 galls/hour
GB	151	1100 galls/hour
GC	82	1600 galls/hour
Homestead	50	1000 galls/hour

Dud or abandoned bores or wells (see plan)

No.6	490	unknown
14a	350	unknown
G.D. 4 a	167	Drilling difficulties
" " b	136	"
" " c	175	"
Horse yard well	-	collapsed
Well west of G.D.X.5	-	collapsed

Proposed bore sites (see plan)

Previous Site No.	New No.	Nearest Geo-graph Feature	Max. Depth	Formation
GDM1	Not required			
GDM2=D bore	GDX1	-	500	Antrim Volcs.
GDM3	GDX2	-	500	Gardiner Form.
B1	GDX3	Nt. Wittenoom	500	Antrim Volcs.
C	GDX4	Lacey Creek	500	Gardiner Form.
E	GDX5	Timber Soak	500	Gardiner Form.
H	GDX6*	Pussycat Creek	500	Gardiner Form.

GDX7	(near Sturt Creek)	500	(?) Alluvium
GDX8	Button Creek	500	(?) Alluvium
GDX9	-	500	Antrim Volc.

\* Position approximate.

STURT CREEK STATION

Existing Bores.

Name	Depth (feet)	Comments
Homestead Well	48'10"	Less than 500 g.p.hour S.W.L. 37'4"
26 Mile Bore	213	1400 g.p.h.

Dud or abandoned bores or wells (see plan)

Name	Depth	Comments
No.5	612	No water
No.25 (not shown on plan/)	500	" "
No.27 ( " " " " /)	835	" "
SC1 ( " " " " /)	460	" "
SC4 ( " " " " /)	60	" "
SC7	200	Salt water
SC8	250	" "
SC9	112	" "

/ Positions not located.

Proposed Bore Sites:

SCK	(SCA) *SCX1	-	350	Kearney Beds
SCJ	(SCB) SCX2	Palm Spring	350	Gardiner Form.
-	(SCC) SCX3	Horse Plain	350	Kearney Beds
-	(S CD) SCX4	-	350	Gardiner Form.
-	(SCD) SCX5	-	500	?Alluvium

\*It was originally arranged with Mr. Ringler to call the bore sites SGA, SCB etc. but this was found to have already been used, so the references to be adopted are as above SCM, SCX2 etc.

FLORA VALLEY STATION

Existing Bores:

Name	Depth (feet)	Comments
No.3	157	2834 galls/hour
No.11	395	600 " "
FA	155	1320 " "
FB	71	1000 (not perm)

Dud or abandoned bores and wells (see plan)

Govt Well	30 ft approx.	Supply unknown.
No.4	500	Supply failed originally 500 g.p.h.
No.4a	105	100 yards north No.4 construction difficult.
FV 24	635	-
FV 4	300	-
Munga Bore	900	Salt water.

Proposed Bore Sites (see plan)

Previous Site No.	New Site No.	Nearest geographic Features	Max. Depth	Formation
PBF-PBFV	Site not required *		-	not known
FVH2	(FVA) FVX1	Fish Creek	350	Flat Rock Form.
FVE	Site not required		-	-
PBK	Sites not required		-	-

-	(FVB) FVX2	Spring Creek	350	Antrim Volcs.
-	(FVC) FVX3	Cow Creek	500	In doubt
-	(FVD) FVX4	Coelibah Creek	500	Antrim Volcs.
G	(FVE) FVX5	Button(Breakfast) Creek.	500	? " "

\* Site PBEV has not been definitely decided on for drilling. It will be discussed further with Mr. Ringler after the drilling programme is under way.

g Sites FVX1 etc. were given to Mr. Ringer as FVA etc. but have now been changed to FVX1 etc. to be consistent with proposals on other properties.

Comments:

It will be appreciated that most of the bore sites have been selected in areas where water is required, not necessarily in places where the geological conditions are most favourable, although there are localities, for example on Gordon Downs, where drilling has been advised against.

Also, some of the hard rock formations to be drilled are relatively unknown quantities as regards their groundwater potential, and conditions can only be assumed to be comparable with those elsewhere. It is possible that a number of the sites will prove to be failures.

The formations mentioned in the schedules above are described as follows:-

Antrim Plateau Volcanics: Fine grained basalt with minor chert.

Gardiner Formation : Fine to coarse grained quartz sandstone.

Flat Rock Formation : Purple shale, purple dolomitic ferruginous sandstone, quartz sandstone.

Kearney Beds : Silicified flaggy and massive sandstone, with some conglomerate.

Because of other commitments it will not be possible to supervise the drilling directly, but the writer proposes to revisit the area during the course of the work, when results can be assessed and the suggestions modified if necessary.

.....  
(A. D. Allen)  
Geologist

*la*

[illegible]