

PARTICULARS OF COMPLETED BORE/WELL			Registration No. RN 25420			
			Index No 80/3351			
			Advice No			
20. Describe rock type, colour etc. any changes must be recorded.			1. Name of Bore 3/87 HOWARD EAST	2. Name of Property KOOLPINYAH		
From - To			3. Owner of Property	4. Type of Lease		
0 - 2 TOPSOIL			5. Lease/Block No. P.L. 547	6. Bore or Well BORE		
2 - 8 SAND			7. Name of Contractor WATER RESOURCES	8. Name of Driller P ESPIE		
8 - 6.1 MULTI COLOURED SANDY CLAY			9. Depth Recommended 56.4 mts	10. Depth Drilled. 56.4 mts		
6.1 - 12.8 WHITE SANDY CLAY			11. Date Commenced 5-11-87	12. Date Completed. 9-12-87		
12.8 - 14.3 SANDY CLAY, QUARTZ SANDSTONE CLIPS			13. Proposed use of Bore <input checked="" type="checkbox"/> Domestic <input type="checkbox"/> Pastoral <input type="checkbox"/> Stock Route <input type="checkbox"/> Irrigation <input type="checkbox"/> Town Supply <input type="checkbox"/> Observation <input checked="" type="checkbox"/> Investigation			
14.3 - 18.5 PURPLE YELLOW + WHITE CLAY			14. Bore has been drilled by <input checked="" type="checkbox"/> Rotary <input type="checkbox"/> Cable Tool <input type="checkbox"/> Jetting <input type="checkbox"/> Other			
18.5 - 19.4 YELLOW CLAY			15. Bore Drilled Using <input checked="" type="checkbox"/> Air <input checked="" type="checkbox"/> Mud <input checked="" type="checkbox"/> Foam <input checked="" type="checkbox"/> Water <input type="checkbox"/> Degradable Polymer			
19.4 - 25.5 PINK LOOSELY CEMENTED QUARTZ SANDSTONE + PURPLE CLAY			Size of drilling Bit 254mm from 0 to 6.1 mts 200 from 6.1 to 32.5 mts 152.4 from 32.5 to 56.4 mts			
25.5 - 29.4 YELLOW + WHITE SANDY CLAYS + QUARTZ GRAVELS			16. Casing Installed <input checked="" type="checkbox"/> Steel <input type="checkbox"/> ABS <input checked="" type="checkbox"/> PVC <input type="checkbox"/> Fibreglass <input type="checkbox"/> Other.....			
29.4 - 30.3 BROWN SILTSTONE			Pvc 152.4 Dia from 0 to 3.7 mts Steel 219 Dia from 0 to 2 mts			
30.3 - 32.5 BROWN SILTSTONE + DOLOMITES			Threaded Welded GLUED			
32.5 - 39.8 BROKEN WEATHERED DOLOMITE, GNEISS, QUARTZ			17. Screens <input type="checkbox"/> None installed <input type="checkbox"/> Stainless Steel <input type="checkbox"/> Bronze <input checked="" type="checkbox"/> PVC Dia..... Slot Size..... From.... to..... Dia..... Slot Size..... From.... to..... Screens are Screwed connected by Pac			
39.8 - 56.4 DOLOMITES			18. Perforation in casing <input type="checkbox"/> Percussion Slotted <input type="checkbox"/> Oxycut <input type="checkbox"/> Drilled PVC Other SCOTCH Slot/hole size 1mm From 3.1 to 3.7 Slot/hole size..... From..... to.....			
21. Sample of strata and water			19. Is any strata cemented off <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If so, give depth 0 to 2 mts			
have been will be left at Darwin Katherine Alice Springs Other.....						
22. WATER	1st Supply	2nd Supply	3rd Supply	4th Supply	5th Supply	Remarks
Struck at	31 - 38 mts					
Standing Water Level						
Discharge	5 lts/sec					

RN025420

23. LOCATION SKETCH (item use)

6028- West SP 19 LINE 2.

Please show boundaries of sections etc, and location of bore (s) within section. If more than one bore clearly identify each. Marked distance from boundaries if possible.

24. This bore has been constructed under by supervision and this report is true to the best of my knowledge.

Signature Driller Date

PLEASE NOTE THE FOLLOWING:-

1. UNITS If possible please use metric units (metres, Millimetres, litres per second). Old units are acceptable (feet, inches, gallons per hour) but make sure you make it clear which you are using.
2. WATER SAMPLES A sample of not less than one litre of each water supply encountered during the drilling is required. Suitable plastic bottles can be obtained from the Water Resources Branch. Please rinse out all bottles properly before sampling. Completely fill the bottle leaving no entrapped air. Please label the bottle with the bore name and depth of supply.
3. STRATA SAMPLES A sample of not less than 0.2 kilograms of each 3m of stratum encountered during drilling is required. Please label all samples with the hole name and interval drilled. Plastic bags and tags can be obtained from Water Division.
4. LOCATION Please describe the location as accurately as possible giving distances from one or more features (such as other bores, dams, etc.) within a close distance. Preferably give a sketch of the area.

26. OFFICE USE ONLY:

Map No: 1:100,000 SHEET 5173 Koolpinah Plotted on Map Date: 2/2/88
 AMG Co-ordinates: 728400 - 862700 Traced to Master Map Date:
 Datum (A.H.D.): ZONE 52 S/B 815 Checked by: Date: 2/6/95
 Geological Basin: Signature (Bore Inspector) Date:

WATER ANALYSIS

Department of Transport & Works
Water Division, Darwin N.T.



Laboratory Register No. 87/88/0909

Date received in Laboratory 10-12-87

WR 4/1A

Bottle No. R158

Time of sampling

Date of sampling 9-12-87

LOCATION AND DETAILS HOWARD EAST G/W PROJ KOOLPINYAH DEPTH 33M

DITCH 3LPS P/N 25420 P/NO. 8051

RSP 202

Proposed water use:- Domestic, Stock, Irrigation, other (specify)

ANALYSIS — PHYSICAL

<input type="checkbox"/> pH	7.8	<input type="checkbox"/> Colour (Hazen units)
<input type="checkbox"/> Specific conductance (microsiemens/cm at 25° C)	370	<input type="checkbox"/> Turbidity (NTU's)
<input type="checkbox"/> Total dissolved solids (mg/L - by evaporation at 180° C)	230	<input type="checkbox"/> Suspended solids (mg/L)

ANALYSIS — CHEMICAL (mg/L)

<input type="checkbox"/> Sodium, Na	25	<input type="checkbox"/> Chloride, Cl	20
<input type="checkbox"/> Potassium, K	1	<input type="checkbox"/> Sulphate, SO ₄	10
<input type="checkbox"/> Calcium, Ca	30	<input type="checkbox"/> Nitrate, NO ₃	1
<input type="checkbox"/> Magnesium, Mg	17	<input type="checkbox"/> Bicarbonate, HCO ₃	200
<input type="checkbox"/> Total Hardness (as CaCO ₃)	140	<input type="checkbox"/> Carbonate, CO ₃	
<input type="checkbox"/> Total Alkalinity (as CaCO ₃)	165	<input type="checkbox"/> Fluoride, F	0.1
<input checked="" type="checkbox"/> Iron, (total) Fe	UNSUITABLE FOR ANALYSIS	<input type="checkbox"/> Orthophosphate, PO ₄	
<input type="checkbox"/> Silica, SiO ₂	18	<input type="checkbox"/> NaCl (calc. from chloride)	30

ANALYSIS — ADDITIONAL (mg/L)

<input type="checkbox"/> Copper, Cu	<input type="checkbox"/> Lead, Pb	<input type="checkbox"/> Arsenic, As
<input type="checkbox"/> Manganese, Mn	<input type="checkbox"/> Zinc, Zn	<input type="checkbox"/> Cadmium, Cd
<input type="checkbox"/> Nickel, N	<input type="checkbox"/> Cobalt, Co	<input type="checkbox"/>

THE SAMPLE AS ANALYSED ~~COMPLIES~~ DOES NOT COMPLY WITH NORTHERN TERRITORY DRINKING WATER STANDARDS AS RECOMMENDED BY THE NORTHERN TERRITORY DEPARTMENT OF HEALTH.



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Analysed By: *Antelope Rind*

Date 11 / 1 / 88

Boxes marked thus ☒ indicate levels considered undesirable for drinking water by the

WR 9/1

DRILLERS LOG

DATE 5-11-87 THURS

BORE No. RN25420

Supervisor: S HERIOT

Driller: P ESPER

HOWARD EAST

Time	Depth	Metres drilled	Mins lapsed	Drillers remark, casing details	BIT DATA				STRING DATA				MUD DATA	WATER SAMPLES	
					No.	Size	Type	Worn cond'n	Item	O.D.	Length	Prog. tally		No.	Depth
730				SERVICE RIG + PUT ON SITE					DB	10"	.80	.80			
				RIG UP + PREPARE TO DRILL											
				WITH 10' DRAG BIT + CONTINUOUS DIGGING					RR	7 7/8	.20	.20			
				MUD PITS. DRILL TO 6.1 + RUN 8 5/8 CASING					SUB	5 1/2	.36	.56			
				0-2 TOPSOIL .2 - .8 SAND .8 - 6.1					① DE	6 1/2	6.00	6.56			
				MULTI COLOURED SANDY CLAY					② DC	6 1/2	6.00	12.56			
				STOP + TRIP BUT TAKE DRAG BIT ADD					SUB	5 1/2	.20	12.76			
				7 7/8 RR + 6 1/2 COLLAR.					DRAG BIT	7 7/8	.98	.98			
0911				START MIXING MUD BENTONITE SBAGS					SUB	5 1/2	.18	1.16			
0931	6.10	-	20	START DRILLING					DC	6 1/2	6.00	7.16			
1006	12.8	6.7	35	6.1 - 12.8 WHITE SANDY CLAY.					DC	6 1/2	6.00	13.16			
				ADD DRILL COLLAR 6 1/2 No 2.					SUB	5 1/2	8.20	13.36			
				RR BALLED UP WITH CLAY BREAK OFF					① DP	4 1/2	6.10	19.46			
				+ MAKE UP 8" DRAG BIT. + CONT					② DP	4 1/2	6.10	25.56			
				12.8 - 14.3 SANDY CLAY + QUARTZ +											
				SANDSTONE CHIPS. 14.3 - 18.5 PURPLE YELLOW											
				+ WHITE CLAY 18.5 - 19.4 YELLOW CLAY											
1112	19.4	6.6	66	ADD DRILL PIPE NO 1 + CONT											
				19.4 - 25.5 PINK MEDIUM GRAINED QUARTZ SANDSTONE											
				LOOSLY CEMENTED WITH PURPLE CLAYS.											
1126	25.5	6.1	14	ADD DP NO 2 + CONT 25.5 - 29.4 YELLOW + WHITE											
				SANDY CLAYS WITH QUARTZ GRAVEL.											
				29.4 - 29.8											
1141	29.8	4.3	15	TOO HARD FOR DRAG BIT STOP TRIP OUT											
				AND PUT 7 7/8 R.R.											

DATE 5-11-87 THURS

BORE No.

RN 25420

HOWARD EAST

Supervisor:

S HERIOT

Driller:

P ESP/10

G. L. DUFFIELD, Government Printer of the Northern Territory

WR 9/1

DRILLERS LOG

DATE 6-11-87 FRID

BORE No.

RN 25420

Supervisor: S HERLOT

Driller: P ESPIE

HOWARD EAST

Time	Depth	Metres drilled	Mins lapsed	Drillers remark, casing details	BIT DATA				STRING DATA			MUD DATA	WATER SAMPLES	
					No.	Size	Type	Worn cond'n	Item	O.D.	Length	Prog. tally	No.	Depth
0830				SERVICE RIG + COMPRESSOR			IR		HAMMER	6"	1.54	1.54		
				GIVE CASING A PUSH TO SEAT					5x DP	4 1/2	30.50	32.04		
				TRIP IN + START DRILLING					⑥ DP	4 1/2	6.10	38.14		
				DRILL 32.5 - 38.1 BROKEN WEATHERED. WITH SAND					⑦ DP	4 1/2	6.10	44.24		
751				DOLOMITE + GNEISS + QUARTZ AIRLIFTING APPROX 5 ft					8 DP	4 1/2	6.10	50.34		
0805	39.1	5.6		ADD DRILL PIPE No 6 + CONT HOLE FALLING IN.										
				39.1 - 39.8 AS ABOVE 39.7 DOLOMITE GETTING SUB + RR					5x DP	4 1/2	30.50	30.97		
				FRESHER 39.8 - 44.2 FRESHER DOLOMITE WITH					⑥ DP	4 1/2	6.10	37.07		
				GNEISS + QUARTZ SAND FROM ABOVE.					⑦ DP	4 1/2	6.10	43.17		
0844	44.2	6.10	37	ADD ROD No 7 + CONTINUE AIRLIFTING 10 ft					8 DP	4 1/2	6.10	49.27		
				44.2 - 48 AS ABOVE 48 - 50.3 DOLOMITE										
0930	50.3	6.10		GETTING FRESHER ADD ROD 8 + CONT										
				50.3 - 56.4 FRESH DOLOMITE										
1010	56.4	6.10		STOP + STIFF FOAM UP TO CLEAR HOLE										
1019				TRIP OUT. DEPTH HOLE BACKFILLED TO 36m										
				TRIP IN WITH 5 1/2 RR + MIX MUD TO CLEANER										
				TO 38.1 ADD ROD No 6 + CLEAN HOLE TO										
				43.2 ADD ROD No 7 + CONT MIX MORE MUD										
1156				CLEAN TO 49.3. ADD ROD 8 + CLEAN TO										
				55.4 MIX MORE MUD CLEAN TO 55.4										
				ADD ROD 9 + CLEAN TO 56.4. CIRCULATE										
1225				FOR AUXILIARY TRIP OUT DEPTH HOLE										
				54.7 m/s SET UP FOR LOGGING.										
				GO + DRIVE VEHICLES BACK FOR PG 19.										
				JOAN DROVE LOADER OUT PACK UP										
1150				KNOCK OFF										

WR 9/1

DRILLERS LOG

DATE SAT 7-11-87

BORE No. RW 25420

Supervisor: S HERLOT

Driller:

HOWARD EAST

[illegible]

DATE.

9-12-87 TUES

BORE No.

Ln 25420

Supervisor:

S Heriot

Driller:

P 259E

G. L. DUFFIELD, Government Printer of the Northern Territory

WR 9/1

DRILLERS LOG

DATE TUES 8-12-87BORE No. RN25420Supervisor: S HERLOTDriller: P ESPLEHOWARD EAST

Time	Depth	Metres drilled	Mins lapsed	Drillers remark, casing details	BIT DATA				STRING DATA				MUD DATA	WATER SAMPLES	
					No.	Size	Type	Worn cond'n	Item	O.D.	Length	Prog. tally		No.	Depth
0732				SERVICE VEHICLES + FINISH DIGGING					RR	7 7/8	.20				
				OUT MUD PILE WITH LOADER DETAIL		4 1/2	4 1/2		SUB	5 1/2	.36	-56			
				HOLE 13.1 mts SEND FOR WATER					DC	6 1/2	6.00	6.56			
				TRIP IN TO 12 mts WITH 7 7/8 RR		3 1/2	4 1/2		SUB	5 1/2	.20	6.76			
				PREPARE TO CLEAN HOLE OUT WITH					① DP	4 1/2	6.10	12.86			
				MUD SET UP MUD PAGES. MIX MUD					② DP	4 1/2	6.10	18.96			
0942				START CLEANING HOLE OUT CLEAN TO					③ DP	4 1/2	6.10	25.06			
0957				18.9 ADD ROD 2 + CONT CLEAN TO											
				25 mts ADD ROD 3 + CONT											
1030	31.16	6.10		KELLY DOWN ADD DP + CONT					④ DP	4 1/2	6.10	31.16			
				TO CLEAN OUT TO 40m.											
1143	37.26	6.10		KELLY DOWN - ADD DP + CONT					⑤ DP	4 1/2	6.10	37.26			
1146	40.00	2.74		STOP AT 40m + CIRCULATE TILL											
				CLEAN - PREPARE TO RUN 4" PVC					DRAG BIT	12"	.92				
				TO BOTTOM PERFS BETWEEN -					SUB	5 1/2	.18	1.10			
				TRIP OUT HOLE BACK FILLED 14 mts					DC	6 1/2	6.00	7.10			
1216				TRIP BACK IN CLEAN OUT TO 40 mts					① DP	4 1/2	6.10	13.20			
				TRIP OUT HOLE BACK FILLED TO 16 mts					② DP	4 1/2	6.10	19.30			
1237				BREAK DOWN COLLAR + BIT					③ DP	4 1/2	6.10	25.40			
				PULL OUT SURFACE CASING + PREPARE											
				TO BEAM WITH DRILL 10 DRAG BIT											
1335				BEAM TO 7.2 ADD 6 1/2 DRILL COLLAR + CONT											
1344				BEAM TO 13.2 ADD DRILL PIPE No 1 + CONT											
				BEAM TO 19.3 ADD ROD 3 + CONT											
				BEAM TO 25.4 ADD ROD 3 + CONT											
				BEAM TO 30 mts BIT TORQUES UP											

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