

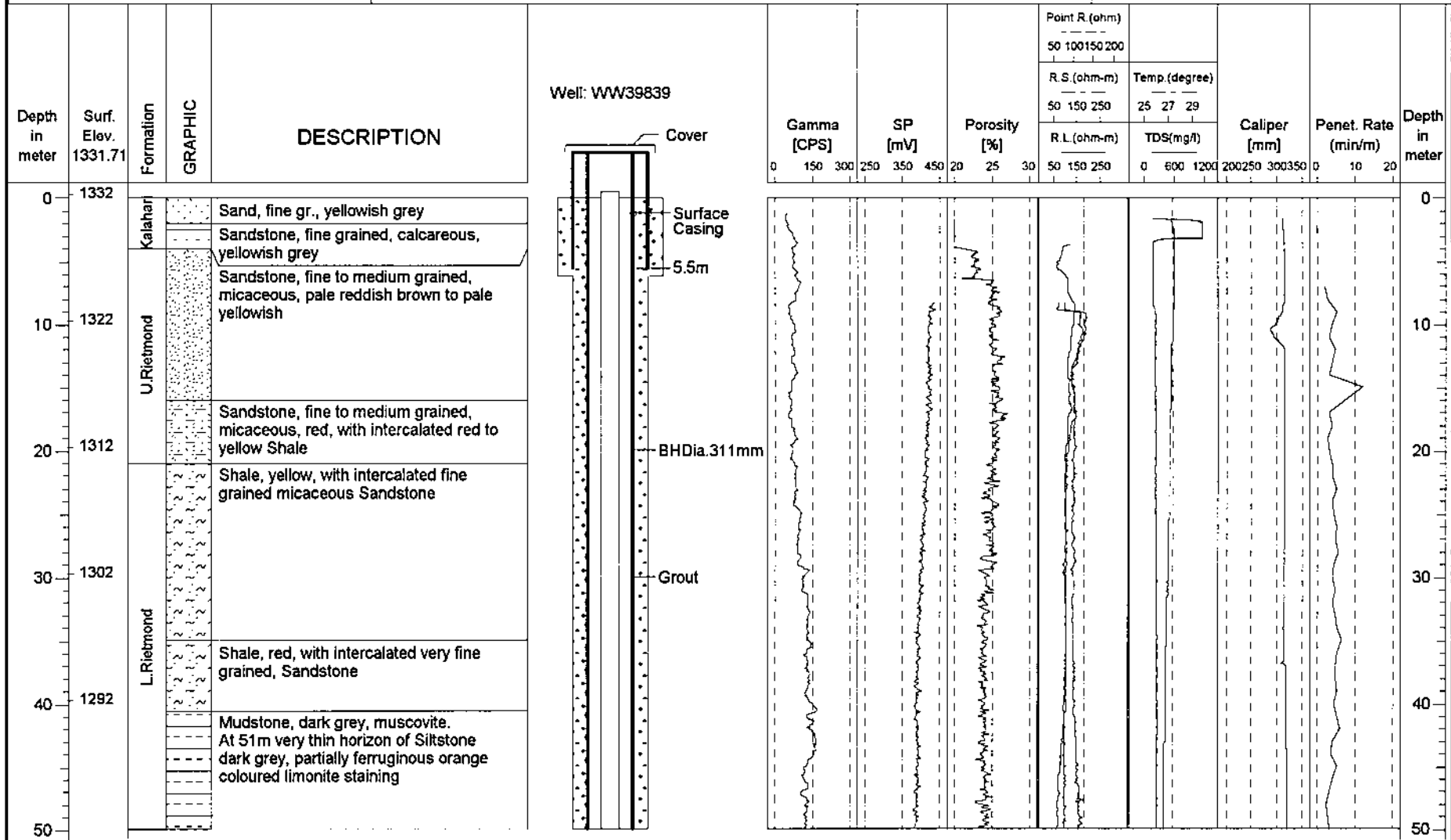
**APPENDIX I**

**Log of Boring J-1 – J-9**

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.25415  
Longitude : E 18.98668  
Elevation : 1,331.71mASL  
Drilling Depth : 256.0m  
SWL : 56.53mBGL

Commenced : 11/Apr/2000  
Completed : 29/Apr/2000  
Pumping Test Date : 10 - 17/May/2000  
Yield : 8.0 m3/hr  
Farm Name : Christiana (L727)



The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.25415  
Longitude : E 18.98668  
Elevation : 1,331.71mASL  
Drilling Depth : 256.0m  
SWL : 56.53mBGL

Commenced : 11/Apr/2000  
Completed : 29/Apr/2000  
Pumping Test Date : 10 - 17/May/2000  
Yield : 8.0 m<sup>3</sup>/hr  
Farm Name : Christiana (L727)

Depth in meter	Surf. Elev. 1331.71	Formation	GRAPHIC	DESCRIPTION	Well: WW39839	Gamma [CPS]	SP [mV]	Porosity [%]	Point R. (ohm)		Caliper [mm]	Penet. Rate (min/m)	Depth in meter	
									R.S. (ohm-m)					Temp. (degree)
									R.L. (ohm-m)					TDS (mg/l)
50	1282	L. Rietmond		Siltstone, dark grey to black, occasional ferrous concretions									50	
60	1272												60	
70	1262	Auob A5		Sandstone, very fine grained, red to light grey, well sorted and rounded									70	
80	1252												80	
90	1242												90	
100													100	

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The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.25415  
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Elevation : 1,331.71mASL  
Drilling Depth : 256.0m  
SWL : 56.53mBGL

Commenced : 11/Apr/2000  
Completed : 29/Apr/2000  
Pumping Test Date : 10 - 17/May/2000  
Yield : 8.0 m3/hr  
Farm Name : Christiana (L727)

Depth in meter	Surf. Elev. 1331.71	Formation	GRAPHIC	DESCRIPTION	Well: WW39839	Gamma [CPS]	SP [mV]	Porosity [%]	Point R.(ohm)	Temp.(degree)	Caliper [mm]	Penet. Rate (min/m)	Depth in meter	
									R.S.(ohm-m)					R.L.(ohm-m)
						0 150 300	250 350 450	20 25 30	50 100 150 200	25 27 29	200 250 300 350	0 10 20		
100	1232	Auob A5		Siltstone, light grey to light orange red	SP Dia.168mm 102.22m								100	
110	1222			Siltstone, light orange red to light grey, with intercalated very fine grained, Sandstone	108.22m SP Dia.168mm 114.33m									110
120	1212	Auob A4		Shale, grey to red. Fe staining on laminations	BH Dia.251mm								120	
130	1202	Auob A3		Sandstone, very fine grained, light grey, well sorted	Gravel Pack								130	
				Sandstone, very fine to coarse grained to small pebbles(0.2-5mm)	132.33m									
140	1192			Sandstone, very fine grained, light grey, rounded and well sorted, occasional scattered pyrite	SP Dia.168mm 138.44m									
150		Auob A2		Sandstone, fine to very coarse grained, light grey, unsorted									150	

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.25415  
Longitude : E 18.98668  
Elevation : 1,331.71mASL  
Drilling Depth : 256.0m  
SWL : 56.53mBGL

Commenced : 11/Apr/2000  
Completed : 29/Apr/2000  
Pumping Test Date : 10 - 17/May/2000  
Yield : 8.0 m3/hr  
Farm Name : Christiana (L727)

Depth in meter	Surf. Elev. 1331.71	Formation	GRAPHIC	DESCRIPTION	Well: WW39839	Gamma [CPS]	SP [mV]	Porosity [%]	Point R (ohm)		Temp (degree)	Caliper [mm]	Penet. Rate (min/m)	Depth in meter
									50 100 150 200	R.S. (ohm-m)				
						0 150 300	250 350 450	20 25 30	50 150 250	0 600 1200	200 250 300 350	0 10 20		
150	1182	Aurb A2		Shale, light grey to grey, minor scattered pyrite									150	
160	1172			160										
170	1162	Aurb A1		Alternation of very fine grained, grey Sandstone and grey Shale									170	
180	1152			180										
190	1142			Sandstone, very fine grained, light grey, with minor intercalated grey Shale									190	
200													200	

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LOG OF BORING J-1A WW39839

(Page 5 of 6)

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.25415  
Longitude : E 18.98668  
Elevation : 1,331.71mASL  
Drilling Depth : 256.0m  
SWL : 56.53mBGL

Commenced : 11/Apr/2000  
Completed : 29/Apr/2000  
Pumping Test Date : 10 - 17/May/2000  
Yield : 8.0 m3/hr  
Farm Name : Christiana (L727)

Depth in meter	Surf. Elev. 1331.71	Formation	GRAPHIC	DESCRIPTION	Well: WW39839	Gamma [CPS]	SP [mV]	Porosity [%]	Point R (ohm)		Caliper [mm]	Penet. Rate (min/m)	Depth in meter	
									50 100 150 200	R.S. (ohm-m)				Temp. (degree)
						0 150 300	250 350 450	20 25 30	50 150 250	0 600 1200	200 250 300 350	0 10 20		
200	1132	L. Mukorob		Shale, light grey, with minor intercalated light grey, fine grained Sandstone									200	
210	1122		Shale, light grey	210										
220	1112	Dwyka		Shale, light grey, with dropstones of quartzite									220	
230	1102		230											
240	1092	Dwyka		Shale, light grey, with dropstones of quartzite									240	
250			250											

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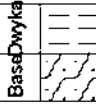

LOG OF BORING J-1A WW39839

(Page 6 of 6)

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.25415  
Longitude : E 18.98668  
Elevation : 1,331.71 mASL  
Drilling Depth : 256.0m  
SWL : 56.53mBGL

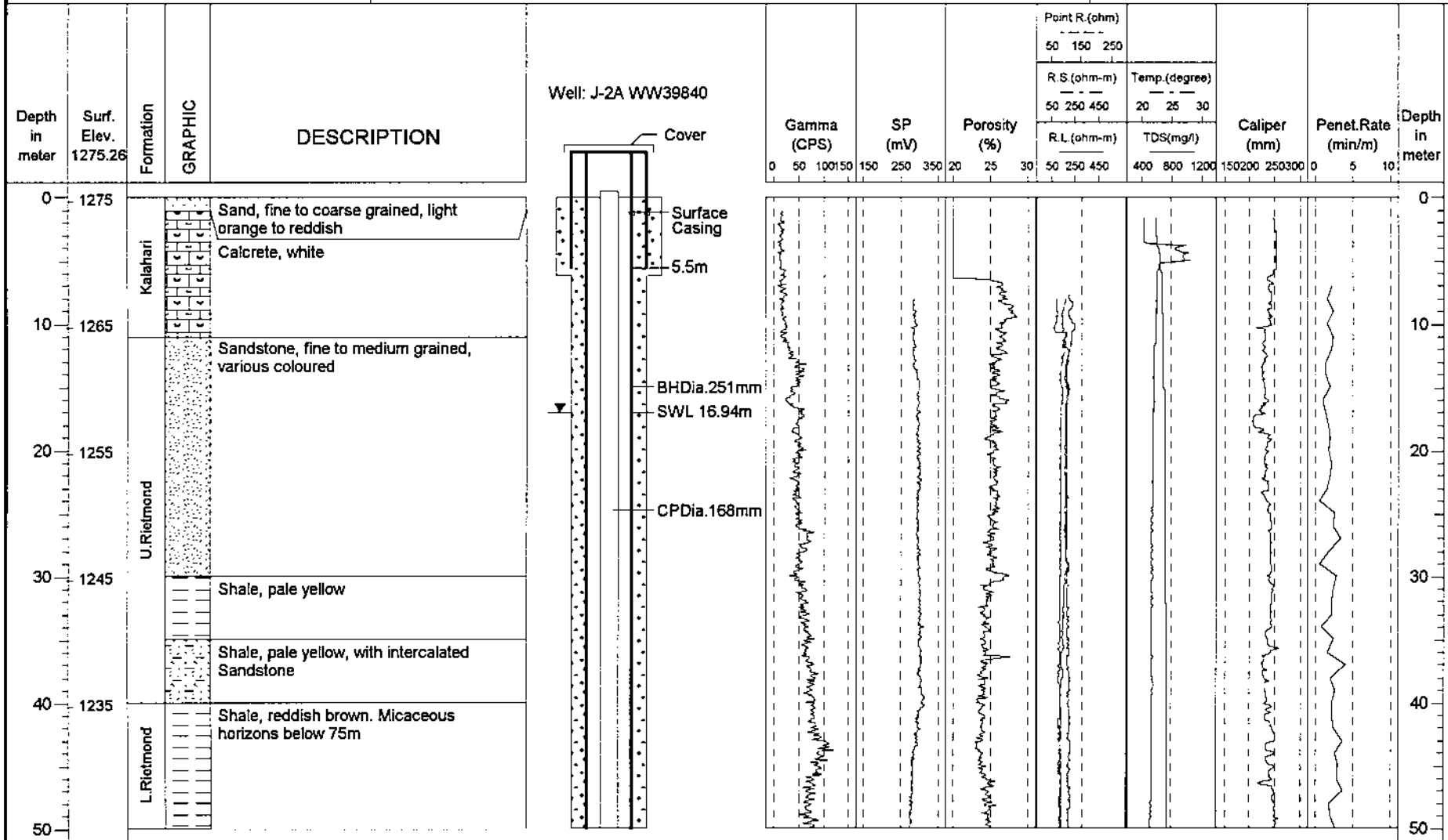
Commenced : 11/Apr/2000  
Completed : 29/Apr/2000  
Pumping Test Date : 10 - 17/May/2000  
Yield : 8.0 m<sup>3</sup>/hr  
Farm Name : Christiana (L727)

Depth in meter	Surf. Elev. 1331.71	Formation	GRAPHIC	DESCRIPTION	Well: WW39839	Gamma [CPS]	SP [mV]	Porosity [%]	Point R. (ohm)		Caliper [mm]	Penet. Rate (min/m)	Depth in meter		
									50 100 150 200						
									R.S. (ohm-m)					Temp. (degree)	
									50 150 250					25 27 29	
		R.L. (ohm-m)		TDS (mg/l)											
		50 150 250		0 600 1200		200 250 300 350		0 10 20							
250	1082	Base Dwyka		Quartzite, red to purple									250		
					Back Fill 256.0m										
260	1072												260		
270	1062												270		
280	1052												280		
290	1042												290		
300													300		

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.64747  
Longitude : E 18.38873  
Elevation : 1,275.26mASL  
Drilling Depth : 131.0m  
SWL : 15.76mBGL

Commenced : 16/May/00  
Completed : 27/Jun/00  
Pumping Test Date : 10 - 17/Oct/2000  
Yield : 3.5 m3/hr  
Farm Name : Olifantswater West(M102)



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LOG OF BORING J-2A WW39840

(Page 2 of 3)

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.64747  
Longitude : E 18.38873  
Elevation : 1,275.26mASL  
Drilling Depth : 131.0m  
SWL : 15.76mBGL

Commenced : 16/May/00  
Completed : 27/Jun/00  
Pumping Test Date : 10 - 17/Oct/2000  
Yield : 3.5 m<sup>3</sup>/hr  
Farm Name : Olifantswater West(M102)

Depth in meter	Surf. Elev. 1275.26	Formation	GRAPHIC	DESCRIPTION	Well: J-2A WW39840	Gamma (CPS)	SP (mV)	Porosity (%)	Point R. (ohm)			Caliper (mm)	Penet. Rate (min/m)	Depth in meter				
									50	150	250							
									R.S. (ohm-m)						Temp. (degree)			
			50	250	450	20	25	30	R.L. (ohm-m)			TDS (mg/l)						
			50	250	450	400	800	1200	150			200			300			
			0	50	100	150	200	250	300	0			5			10		
50	1225	L. Rietmond											50					
60	1215												60					
70	1205												70					
80	1195												80					
90	1185	Auob		Sandstone, medium gr., pale brownish, fining downwards, friable and very porous	84.85m								90					
100													100					

LOG OF BORING J-2A WW39840

(Page 3 of 3)

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.64747  
Longitude : E 18.38873  
Elevation : 1,275.26mASL  
Drilling Depth : 131.0m  
SWL : 15.76mBGL

Commenced : 16/May/00  
Completed : 27/Jun/00  
Pumping Test Date : 10 - 17/Oct/2000  
Yield : 3.5 m3/hr  
Farm Name : Olifantwater West(M102)

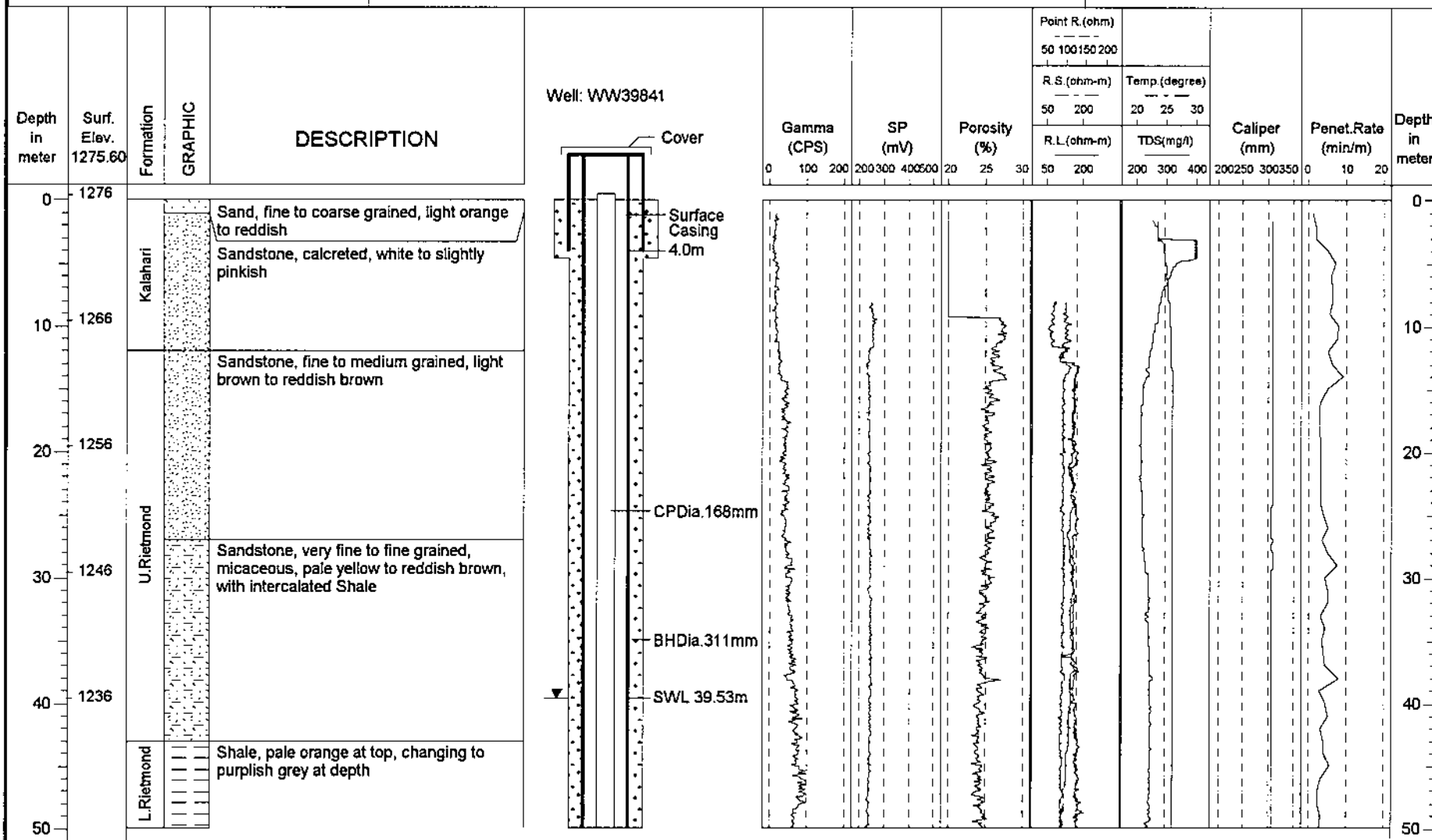
Depth in meter	Surf. Elev. 1275.26	Formation	GRAPHIC	DESCRIPTION	Well: J-2A WW39840										Depth in meter							
					Gamma (CPS)	SP (mV)	Porosity (%)	Point R.(ohm)			Caliper (mm)	Penet.Rate (min/m)										
								R.S.(ohm-m)		Temp.(degree)												
								R.L.(ohm-m)		TDS(mg/l)												
0	50	100	150	20	25	30	50	150	250	20	25	30	400	800	1200	150	200	250	300	0	5	10
100	1175	Auob											100									
110	1165												110									
120	1155	U.Mukorob		Shale with intercalated very light grey Sandstone and Siltstone									115.6m	120								
130	1145			Shale, light grey, with minor intercalated Siltstone									131.0m	130								
140	1135											140										
150													150									

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The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.64808  
Longitude : E 18.38871  
Elevation : 1,275.60mASL  
Drilling Depth : 209.0m  
SWL : 39.53mBGL

Commenced : 09/May/00  
Completed : 18/May/00  
Pumping Test Date : 7 - 14/Oct/2000  
Yield : 3.0 m3/hr  
Farm Name : Olifantswater West(M102)



01

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.64808  
Longitude : E 18.38871  
Elevation : 1,275.60mASL  
Drilling Depth : 209.0m  
SWL : 39.53mBGL

Commenced : 09/May/00  
Completed : 18/May/00  
Pumping Test Date : 7 - 14/Oct/2000  
Yield : 3.0 m3/hr  
Farm Name : Olifantswater West(M102)

Depth in meter	Surf. Elev. 1275.60	Formation	GRAPHIC	DESCRIPTION	Well: WW39841	Gamma (CPS)	SP (mV)	Porosity (%)	Point R.(ohm)	Temp.(degree)	Caliper (mm)	Penet.Rate (min/m)	Depth in meter
									50 100150 200				
						0 100 200	200 300 400 500	20 25 30	R.S.(ohm-m)	R.L.(ohm-m)	TDS(mg/l)	200 250 300 350	0 10 20
50	1226	L. Rietmond		Shale, pale yellow to pale grey									50
60	1216			60									
70	1206	Aub		Shale, grey, micaceous									70
80	1196			80									
90	1186	Sandstone, fine to coarse grained, fining downwards, pale brownish, muscovite rich from 114 to 117, friable and generally very porous										90	
100		100											

LOG OF BORING J-2N WW39841

(Page 3 of 5)

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.64808  
Longitude : E 18.38871  
Elevation : 1,275.60mASL  
Drilling Depth : 209.0m  
SWL : 39.53mBGL

Commenced : 09/May/00  
Completed : 18/May/00  
Pumping Test Date : 7 - 14/Oct/2000  
Yield : 3.0 m3/hr  
Farm Name : Olifantswater West(M102)

Depth in meter	Surf. Elev. 1275.60	Formation	GRAPHIC	DESCRIPTION	Well: WW39841	Gamma (CPS)	SP (mV)	Porosity (%)	Point R.(ohm)		Caliper (mm)	Penet.Rate (min/m)	Depth in meter		
									R.S (ohm-m)					Temp.(degree)	
									50	200				20	30
100	1176	Auob											100		
110	1166												110		
120	1156	U.Mukorob		Sandstone, fine to very fine grained, light grey to dark grey, with intercalated light grey Shale									120		
130	1146												130		
140	1136	L.Mukorob		Shale, grey to dark grey. From 157m, shale is predominantly carbonaceous									140		
150													150		

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.64808  
Longitude : E 18.38871  
Elevation : 1,275.60mASL  
Drilling Depth : 209.0m  
SWL : 39.53mBGL

Commenced : 09/May/00  
Completed : 18/May/00  
Pumping Test Date : 7 - 14/Oct/2000  
Yield : 3.0 m3/hr  
Farm Name : Olifantwater West(M102)

Depth in meter	Surf. Elev. 1275.60	Formation	GRAPHIC	DESCRIPTION	Well: WW39841	Gamma (CPS)	SP (mV)	Porosity (%)	Point R. (ohm)		Caliper (mm)	Penet. Rate (min/m)	Depth in meter	
									50	100				150
						R.S. (ohm-m)		Temp. (degree)						
						50	200	20	25	30				
						R.L. (ohm-m)		TDS (mg/l)						
						50	200	200	300	400	200	250	300	350
150	1126	L. Mukorob			Well: WW39841								150	
160	1116												160	
170	1106												170	
180	1096	Nosob		Sandstone, medium gr., grey	Well: WW39841								180	
				Shale, dark grey									181.07m	180
				Sandstone, fine to medium grained, light grey									SP Dia. 168mm	190
190	1086			Sandstone, very fine grained, light grey, with intercalated grey Shale										190
		Sandstone, fine to medium grained, fining downwards		200										
200												200		

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The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.64808  
Longitude : E 18.38871  
Elevation : 1,275.60mASL  
Drilling Depth : 209.0m  
SWL : 39.53mBGL

Commenced : 09/May/00  
Completed : 18/May/00  
Pumping Test Date : 7 - 14/Oct/2000  
Yield : 3.0 m3/hr  
Farm Name : Olifantswater West(M102)

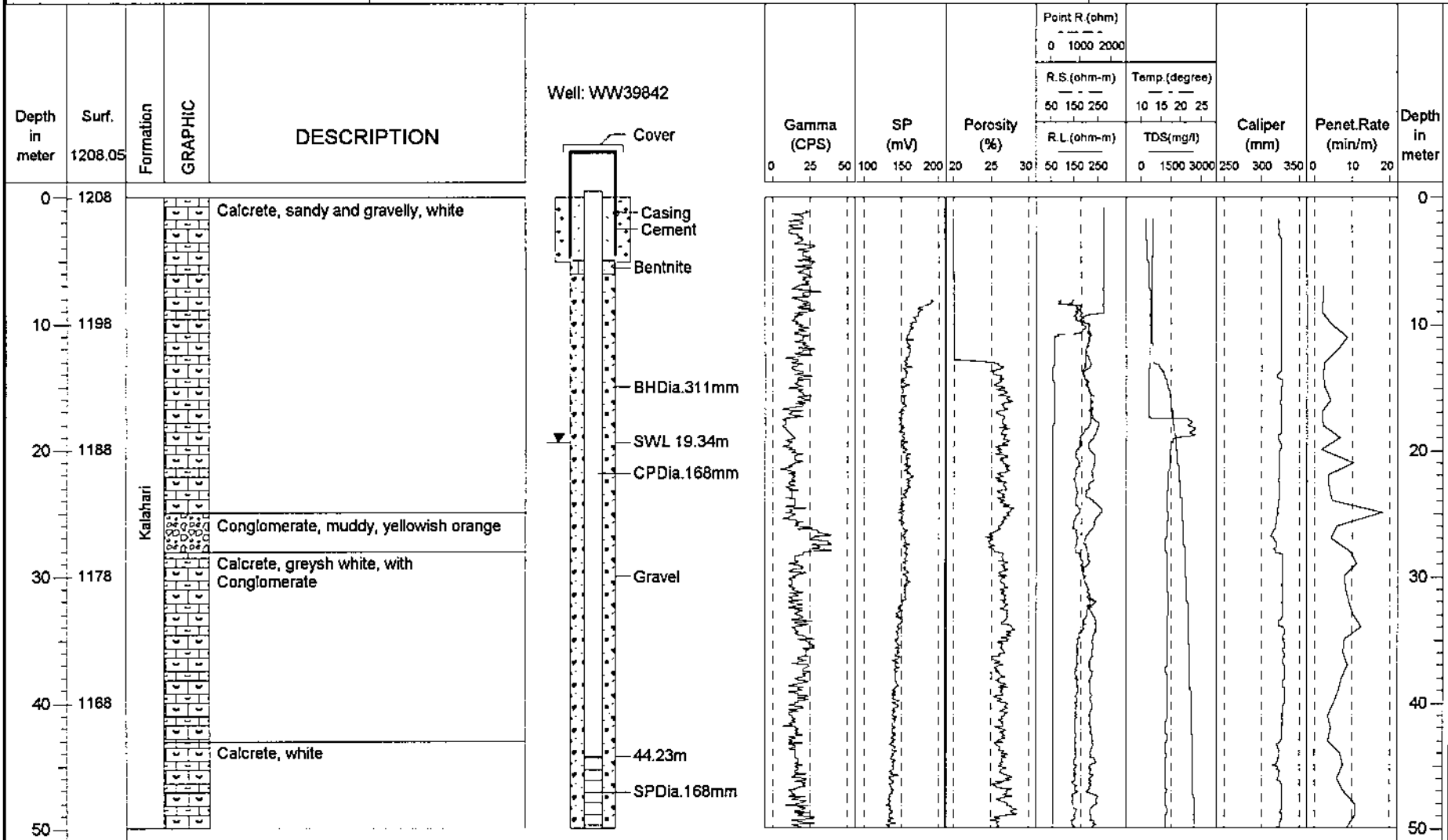
Depth in meter	Surf. Elev. 1275.60	Formation	GRAPHIC	DESCRIPTION	Well: WW39841	Gamma (CPS)	SP (mV)	Porosity (%)	Point R (ohm)		Caliper (mm)	Penet.Rate (min/m)	Depth in meter		
									50	100				150	200
						0	100	200	200	300	400	0	10	20	
						50	200	20	25	30	200	300	400	200	300
						50	200	200	300	400	200	300	400	200	300
200	1076	Dwyka/Nossob										200			
				Shale, light grey, pebbly horizon at 207.5m											
210	1066			Quartzite, red to light purple, feldspathic								210			
220	1056											220			
230	1046											230			
240	1036											240			
250												250			

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The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 24.04592  
Longitude : E 18.79340  
Elevation : 1,208.05mASL  
Drilling Depth : 102.0m  
SWL : 19.34mBGL

Commenced : 24/Jun/00  
Completed : 08/Jun/00  
Pumping Test Date : 25/Jun - 1/Jul/2000  
Yield : 1.5 m<sup>3</sup>/hr  
Farm Name : Steynsrus(R300)





**BOREHOLE LOG J-3K WW39842**

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The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 24.04592  
Longitude : E 18.79340  
Elevation : 1,208.05mASL  
Drilling Depth : 102.0m  
SWL : 19.34mBGL

Commenced : 24/Jun/00  
Completed : 08/Jun/00  
Pumping Test Date : 25/Jun - 1/Jul/2000  
Yield : 1.5 m<sup>3</sup>/hr  
Farm Name : Steynsrus(R300)

Depth in meter	Surf. 1208.05	Formation	GRAPHIC	DESCRIPTION	Well: WW39842	Gamma (CPS)	SP (mV)	Porosity (%)	Point R.(ohm)		Caliper (mm)	Penet.Rate (min/m)	Depth in meter	
									0 1000 2000	R.S (ohm-m)				Temp (degree)
						0 25 50 100 150 200	20 25 30	50 150 250	0 1500 3000	250 300 350	0 10 20			
50	1158	Kalahari		Sandstone, fine to coarse grained, reddish brown	SPDia.168mm								50	
60	1148			Sandstone, fine to medium grained, gravelly(pebbles), pale reddish	59.08m SPDia.168mm 64.93m									60
70	1138	Rietmond			71.05m SPDia.168mm								70	
80	1128			Sandstone, gravelly(pebbles), fine to medium grained, light brownish to light reddish brown, with intercalated Shale	76.9m									80
90	1118				Gravel BHDia.311mm									90
100													100	

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 24.04592  
Longitude : E 18.79340  
Elevation : 1,208.05mASL  
Drilling Depth : 102.0m  
SWL : 19.34mBGL

Commenced : 24/Jun/00  
Completed : 08/Jun/00  
Pumping Test Date : 25/Jun - 1/Jul/2000  
Yield : 1.5 m3/hr  
Farm Name : Steynsrus(R300)

Depth in meter	Surf. 1208.05	Formation	GRAPHIC	DESCRIPTION	Well: WW39842	Gamma (CPS)	SP (mV)	Porosity (%)	Point R. (ohm)			Temp. (degree)				Caliper (mm)	Penet. Rate (min/m)	Depth in meter											
									0	1000	2000	10	15	20	25														
						0	25	50	100	150	200	20	25	30	50	150	250	0	1500	3000	250	300	350	0	10	20			
100	1108																												100
110	1098																												110
120	1088																												120
130	1078																												130
140	1068																												140
150																													150

61

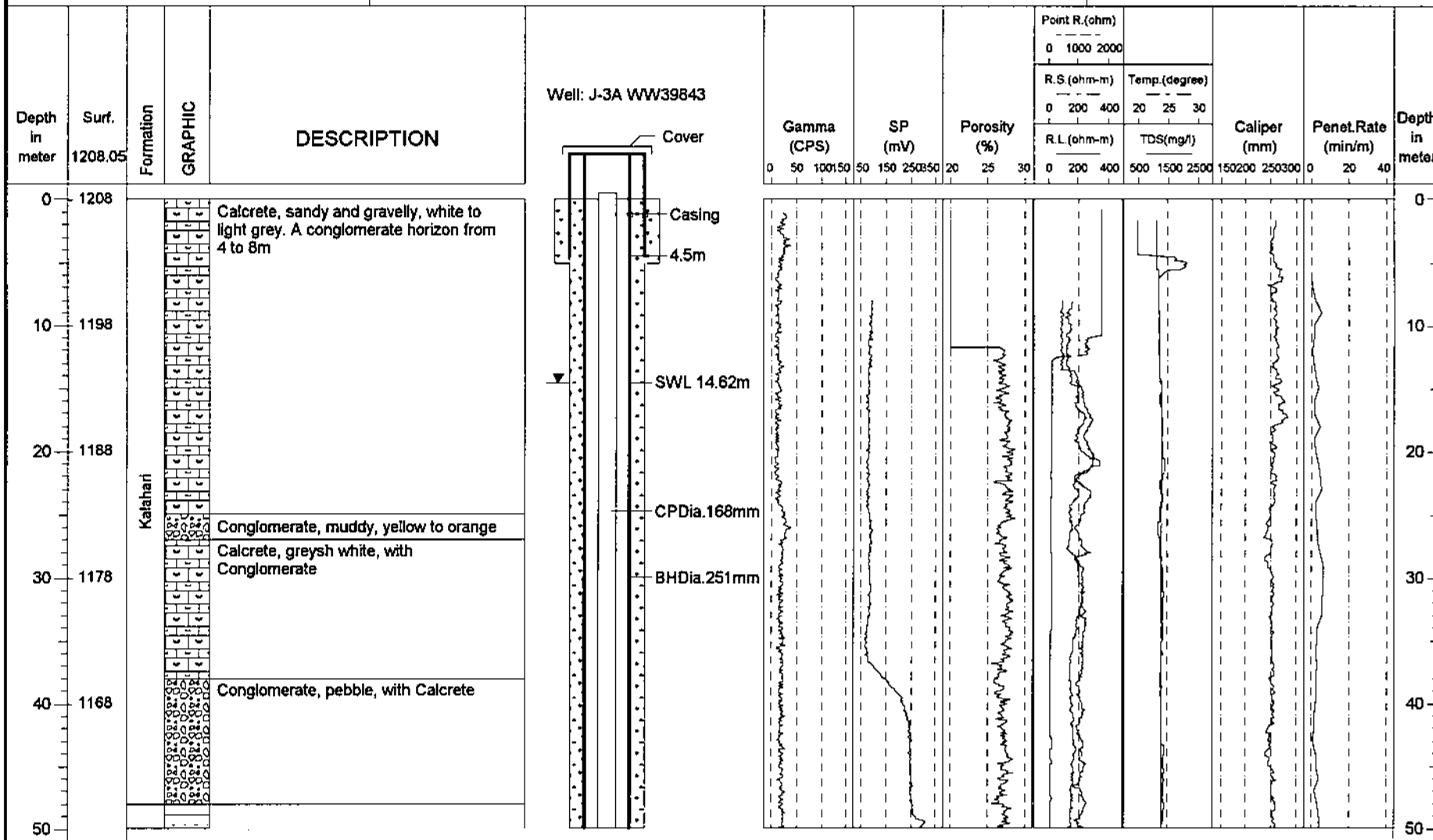
# BOREHOLE LOG J-3A WW39843

(Page 1 of 6)

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 24.04792  
Longitude : E 18.79312  
Elevation : 1,208.05mASL  
Drilling Depth : 253.0m  
SWL : 15.77mBGL

Commenced : 03/Jun/00  
Completed : 10/Jun/00  
Pumping Test Date : 04/Jul - 08/Jul/2000  
Yield : 20.0 m3/hr  
Farm Name : Steynsrus(R300)



The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 24.04792  
Longitude : E 18.79312  
Elevation : 1,208.05mASL  
Drilling Depth : 253.0m  
SWL : 15.77mBGL

Commenced : 03/Jun/00  
Completed : 10/Jun/00  
Pumping Test Date : 04/Jul - 08/Jul/2000  
Yield : 20.0 m3/hr  
Farm Name : Steynsrus(R300)

Depth in meter	Surf. 1208.05	Formation	GRAPHIC	DESCRIPTION	Well: J-3A WW39843	Gamma (CPS)	SP (mV)	Porosity (%)	Point R. (ohm)		Caliper (mm)	Penet.Rate (min/m)	Depth in meter	
									0 1000 2000	Temp.(degree)				
						0 50 100 150	50 150 250 350	20 25 30	R.S.(ohm-m)	TDS(mg/l)	150 200 250 300	0 20 40		
						0 200 400	500 1500 2500	0 200 400	0 200 400	500 1500 2500	150 200 250 300	0 20 40		
50	1158	U.Rietmond		Sandstone, fine to coarse grained., reddish brown									50	
60	1148			Sandstone, gravelly(pebbles), pale reddish									60	
70	1138												Sandstone, gravelly(pebbles), fine to medium grained, light reddish to brownish, with intercalated Shale	70
80	1128	80												
90	1118	90												
100		100												

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The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 24.04792  
Longitude : E 18.79312  
Elevation : 1,208.05mASL  
Drilling Depth : 253.0m  
SWL : 15.77mBGL

Commenced : 03/Jun/00  
Completed : 10/Jun/00  
Pumping Test Date : 04/Jul - 08/Jul/2000  
Yield : 20.0 m3/hr  
Farm Name : Steynsrus(R300)

Depth in meter	Surf. 1208.05	Formation	GRAPHIC	DESCRIPTION	Well: J-3A WW39843	Gamma (CPS)	SP (mV)	Porosity (%)	Point R.(ohm)		Caliper (mm)	Penet.Rate (min/m)	Depth in meter		
									0 1000 2000	R.S.(ohm-m)				Temp.(degree)	TDS(mg/l)
						0 50 100150	50 150 250350	20 25 30	0 200 400	20 25 30	150200 250300	0 20 40			
100	1108	U Rietmond		Sandstone, gravelly(pebbles), fine to medium grained, reddish brown	Casing								100		
110	1098				CPDia.168mm										110
120	1088	Auob A5		Sandstone, medium to coarse grained, white to pale grey	118.0m								120		
					121.34m										
					SPDia.168mm										
130	1078	Auob A5		Sandstone, coarse grained, light brown to white, with disseminated white gypsum specs	127.19m								130		
					BHDia.251mm										
140	1068	Auob A4		Shale, yellowish to light red	133.19m								140		
					SPDia.168mm										
150		Auob A4		Shale, yellowish to light red	139.04m								150		

# BOREHOLE LOG J-3A WW39843

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The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 24.04792  
Longitude : E 18.79312  
Elevation : 1,208.05mASL  
Drilling Depth : 253.0m  
SWL : 15.77mBGL

Commenced : 03/Jun/00  
Completed : 10/Jun/00  
Pumping Test Date : 04/Jul - 08/Jul/2000  
Yield : 20.0 m3/hr  
Farm Name : Staynsrus(R300)

Depth in meter	Surf. 1208.05	Formation	GRAPHIC	DESCRIPTION	Well: J-3A WW39843	Gamma (CPS)	SP (mV)	Porosity (%)	Point R.(ohm)		Caliper (mm)	Penet. Rate (min/m)	Depth in meter	
									0 1000 2000	Temp.(degree)				
						0 50 100150	50 150 250350	20 25 30	R.S.(ohm-m)		TDS(mg/l)			
						0 200 400	20 25 30	0 200 400	150 200 2500		150200 250300	0 20 40		
						0 200 400	500 1500 2500							
150	1058	Auob A3		Sandstone, medium to coarse grained, reddish to grey	151.045m SPDia.168mm								150	
160	1048			Shale, sandy, pale reddish brown	156.895m 159.0m								160	
170	1038			Shale, sandy, light grey to grey	BHDia.200mm								170	
180	1028	Auob A2		Shale, grey, moderately laminated	174.9m SPDia.168mm 177.8m								180	
190	1018			190										
200													200	

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 24.04792  
Longitude : E 18.79312  
Elevation : 1,208.05mASL  
Drilling Depth : 253.0m  
SWL : 15.77mBGL

Commenced : 03/Jun/00  
Completed : 10/Jun/00  
Pumping Test Date : 04/Jul - 08/Jul/2000  
Yield : 20.0 m3/hr  
Farm Name : Steynsrus(R300)

Depth in meter	Surf. 1208.05	Formation	GRAPHIC	DESCRIPTION	Well: J-3A WW39843	Gamma (CPS)	SP (mV)	Porosity (%)	Point R. (ohm)		Caliper (mm)	Penet. Rate (min/m)	Depth in meter	
									0 1000 2000	Temp. (degree)				
						0 50 100 150	50 150 250 350	20 25 30	R.S. (ohm-m)		TDS (mg/l)			
						0 200 400	0 200 400	500 1500 2500	150 200 250 300	0 20 40				
200	1008	Auob A2			BHDia. 200mm								200	
210	998												210	
220	988												220	
230	978	Auob A1		Sandstone, fine to medium grained, pale grey to light grey, with intercalated grey to dark grey Shale	230.035m	SPDia. 168mm							230	
240	968			Sandstone, medium grained, light grey	235.885m								240	
250		Mukorob			241.89m	SPDia. 168mm							250	
					247.74m SAMP									

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 24.04792  
Longitude : E 18.79312  
Elevation : 1,208.05mASL  
Drilling Depth : 253.0m  
SWL : 15.77mBGL

Commenced : 03/Jun/00  
Completed : 10/Jun/00  
Pumping Test Date : 04/Jul - 08/Jul/2000  
Yield : 20.0 m3/hr  
Farm Name : Steynsrus(R300)

Depth in meter	Surf. 1208.05	Formation	GRAPHIC	DESCRIPTION	Well: J-3A WW39843	Gamma (CPS)	SP (mV)	Porosity (%)	Point R.(ohm)		Caliper (mm)	Penet.Rate (min/m)	Depth in meter	
									0 1000 2000	Temp.(degree)				
						0 50 100 150	50 150 250 350	20 25 30	R.S.(ohm-m)		TDS(mg/l)			
						0 200 400	500 1500 2500	150200 250300	0 20 40					
250	958	U Mukorob		Shale, light grey, with minor very fine grained Sandstone									250	
260	948												260	
270	938												270	
280	928												280	
290	918												290	
300													300	

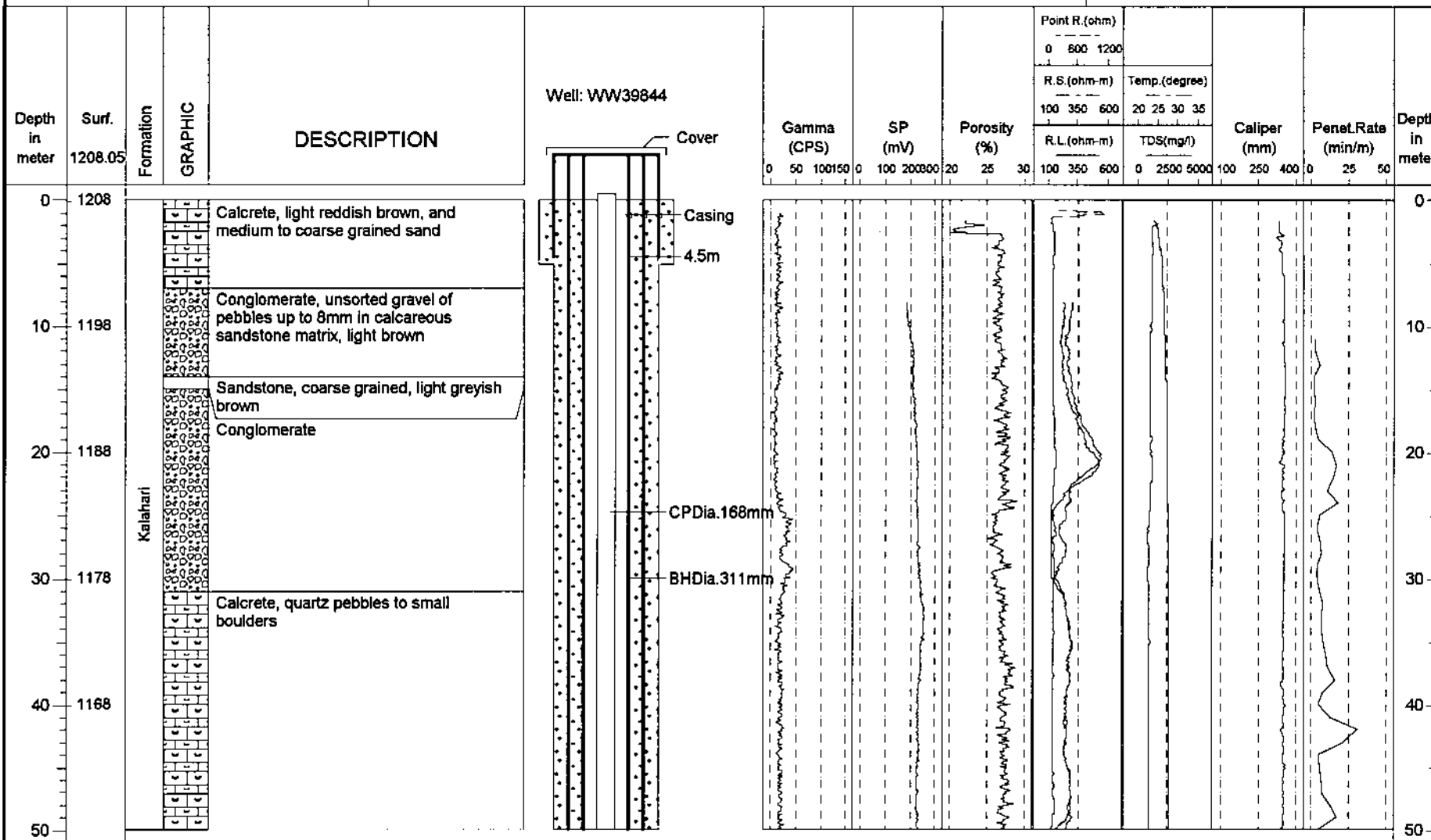
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The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 24.04858  
Longitude : E 18.79614  
Elevation : 1,208.05mASL  
Drilling Depth : 409.0m  
SWL : -30.7mGL

Commenced : 21/May/2000  
Completed : 03/Jun/2000  
Pumping Test Date : 03/Oct/2000  
Yield : Inextractable  
Farm Name : Steynsrus(R300)



The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stamriet) Artesian Basin

Latitude : S 24.04858  
Longitude : E 18.79614  
Elevation : 1,208.05mASL  
Drilling Depth : 409.0m  
SWL : -30.7mGL

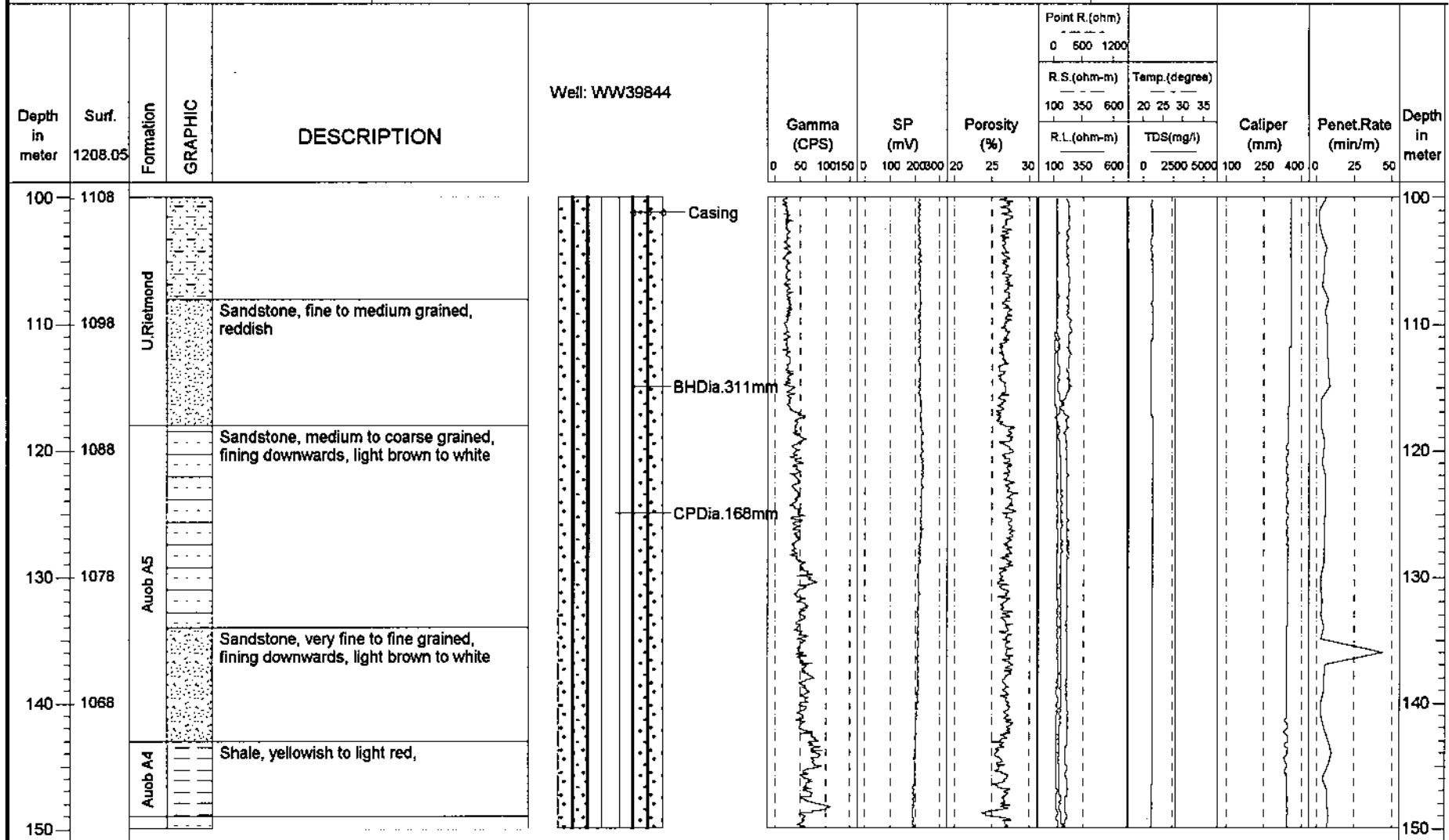
Commenced : 21/May/2000  
Completed : 03/Jun/2000  
Pumping Test Date : 03/Oct/2000  
Yield : Inextractable  
Farm Name : Steynsrus(R300)

Depth in meter	Surf. 1208.05	Formation	GRAPHIC	DESCRIPTION	Well: WW39844	Gamma (CPS)	SP (mV)	Porosity (%)	Point R.(ohm)		Caliper (mm)	Penet.Rate (min/m)	Depth in meter	
									0 600 1200	R.S.(ohm-m)				Temp.(degree)
						0 50 100 150	0 100 200 300	20 25 30	100 350 600	20 25 30 35	100 250 400	0 25 50		
						0 50 100 150	0 100 200 300	20 25 30	R.L.(ohm-m)	TDS(mg/l)	100 250 400	0 25 50		
50	1158	U.Rietmond		Sandstone, fine to coarse grained, pale brown to brown. Occasional larger pebbles embedded in Sandstone									50	
60	1148												60	
70	1138												70	
80	1128												80	
90	1118			Sandstone, fine to coarse grained, light reddish brown, with intercalated Shale									90	
100													100	

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 24.04858  
Longitude : E 18.79614  
Elevation : 1,208.05mASL  
Drilling Depth : 409.0m  
SWL : -30.7mGL

Commenced : 21/May/2000  
Completed : 03/Jun/2000  
Pumping Test Date : 03/Oct/2000  
Yield : Inextractable  
Farm Name : Steynsrus(R300)



The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 24.04858  
Longitude : E 18.79614  
Elevation : 1,208.05mASL  
Drilling Depth : 409.0m  
SWL : -30.7mGL

Commenced : 21/May/2000  
Completed : 03/Jun/2000  
Pumping Test Date : 03/Oct/2000  
Yield : Inextractable  
Farm Name : Steynsrus(R300)

Depth in meter	Surf. 1208.05	Formation	GRAPHIC	DESCRIPTION	Well: WW39844	Gamma (CPS)	SP (mV)	Porosity (%)	Point R. (ohm)		Caliper (mm)	Penet. Rate (min/m)	Depth in meter
									0 600 1200	Temp. (degree)			
									100 350 600	20 25 30 35			
						0 50 100 150	0 100 200 300	20 25 30	R.L. (ohm-m)	TDS (mg/l)	100 250 400	0 25 50	
150	1058	Auob A3		Sandstone, fine to coarse grained, light reddish to purple, grains mostly subrounded to subangular									150
160	1048			Shale, sandy, pale grey brown to light grey									160
170	1038	Auob A2		Shale, dark grey to grey, moderately laminated									170
180	1028												180
190	1018												190
200													200

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The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 24.04858  
Longitude : E 18.79614  
Elevation : 1,208.05mASL  
Drilling Depth : 409.0m  
SWL : -30.7mGL

Commenced : 21/May/2000  
Completed : 03/Jun/2000  
Pumping Test Date : 03/Oct/2000  
Yield : Inextractable  
Farm Name : Steynsrus(R300)

Depth in meter	Surf. 1208.05	Formation	GRAPHIC	DESCRIPTION	Well: WW39844	Gamma (CPS)	SP (mV)	Porosity (%)	Point R. (ohm)		Caliper (mm)	Penet. Rate (min/m)	Depth in meter
									0 600 1200	Temp. (degree)			
						0 50 100 150	0 100 200 300	20 25 30	100 350 600	20 25 30 35	0 250 5000	100 250 400	0 25 50
						R.S. (ohm-m)	R.L. (ohm-m)		TDS (mg/l)				
200	1008	Avob A2			Casing								200
210	998												210
220	988												220
230	978	Avob A1		Sandstone, fine to medium grained, pale grey to light grey, with intercalated grey to dark grey Shale at 229 to 233m and 235 to 236m	CPDia. 168mm								230
240	968												240
250		Mukarab											250

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The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 24.04858  
Longitude : E 18.79614  
Elevation : 1,208.05mASL  
Drilling Depth : 409.0m  
SWL : -30.7mGL

Commenced : 21/May/2000  
Completed : 03/Jun/2000  
Pumping Test Date : 03/Oct/2000  
Yield : Inextractable  
Farm Name : Steynsrus(R300)

Depth in meter	Surf. 1208.05	Formation	GRAPHIC	DESCRIPTION	Well: WW39844	Gamma (CPS)	SP (mV)	Porosity (%)	Point R. (ohm)		Caliper (mm)	Penet. Rate (min/m)	Depth in meter	
									R.S. (ohm-m)					Temp. (degree)
									R.L. (ohm-m)					TDS (mg/l)
250	958	U. Mukorob		Shale, light grey, well laminated, with minor light grey very fine to fine grained Sandstone					0 600 1200	20 25 30 35			250	
260	948								100 350 600	0 2500 5000			260	
270	938								100 350 600	0 2500 5000			270	
280	928	L. Mukorob		Shale, grey to dark grey, well laminated					0 2500 5000	0 25 50			280	
290	918								0 2500 5000	0 25 50			290	
300									0 2500 5000	0 25 50			300	

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The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 24.04858  
Longitude : E 18.79614  
Elevation : 1,208.05mASL  
Drilling Depth : 409.0m  
SWL : -30.7mGL

Commenced : 21/May/2000  
Completed : 03/Jun/2000  
Pumping Test Date : 03/Oct/2000  
Yield : Inextractable  
Farm Name : Steynsrus(R300)

Depth in meter	Surf. 1208.05	Formation	GRAPHIC	DESCRIPTION	Well: WW39844	Gamma (CPS)	SP (mV)	Porosity (%)	Point R.(ohm)		Caliper (mm)	Penet. Rate (min/m)	Depth in meter				
									0 600 1200	Temp.(degree)							
									R.S (ohm-m)	20 25 30 35							
									R.L (ohm-m)	TDS(mg/l)	100 250 400	0 25 50					
									0 50 100 150	0 100 200 300	20 25 30	100 350 600	0 2500 5000	100 250 400	0 25 50		
300	908	L. Mukorob		Sandstone, fine to medium grained, light grey	CP Dia. 168mm BHD Dia. 200mm									300			
310	898			Shale, light grey to dark grey, bituminous, laminated										310			
320	888			320													
330	876	Nossob		Sandstone, fine to medium grained, light grey	336.8m SPDia. 168mm 345.55m									330			
340	868			Shale, well laminated										340			
				Sandstone, fine grained, fining downwards to Siltstone													
				Shale, grey, well laminated													
350														350			

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The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 24.04858  
Longitude : E 18.79614  
Elevation : 1,208.05mASL  
Drilling Depth : 409.0m  
SWL : -30.7mGL

Commenced : 21/May/2000  
Completed : 03/Jun/2000  
Pumping Test Date : 03/Oct/2000  
Yield : Inextractable  
Farm Name : Steynsrus(R300)


Depth in meter	Surf. 1208.05	Formation	GRAPHIC	DESCRIPTION	Well: WW39844	Gamma (CPS)	SP (mV)	Porosity (%)	Point R. (ohm)		Caliper (mm)	Penet.Rate (min/m)	Depth in meter		
									R.S.(ohm-m)					Temp.(degree)	
									R.L.(ohm-m)					TDS(mg/l)	
350	858	Nossob		Sandstone, fine grained, light grey, with intercalated grey Shale. Shale dominating with increasing depth					0	600	20	35	350		
360	848								100	350	25	30			
370	838	Dwyka		Shale, grey, laminated					100	350	100	250	370		
380	828								0	2500	5000	100		250	400
390	818								0	2500	5000	100		250	400
400				Sandstone, fine grained									400		



The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 24.04858  
Longitude : E 18.79614  
Elevation : 1,208.05mASL  
Drilling Depth : 409.0m  
SWL : -30.7mGL

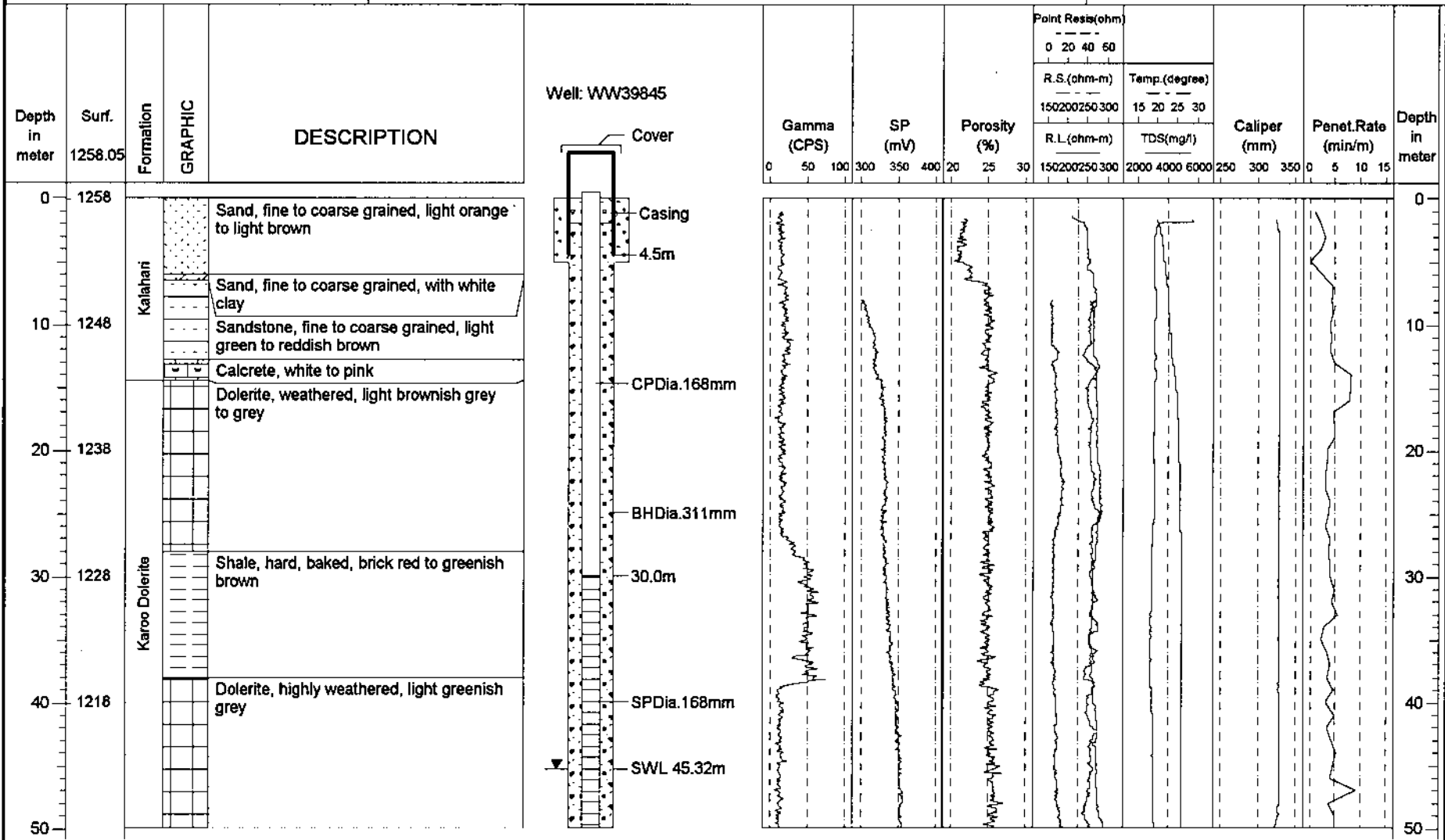
Commenced : 21/May/2000  
Completed : 03/Jun/2000  
Pumping Test Date : 03/Oct/2000  
Yield : Inextractable  
Farm Name : Steynsrus(R300)

Depth in meter	Surf. 1208.05	Formation Dwyka	GRAPHIC	DESCRIPTION	Well: WW39844	Gamma (CPS)	SP (mV)	Porosity (%)	Point R.(ohm)			Temp.(degree)			Caliper (mm)	Penet.Rate (min/m)	Depth in meter											
									0	600	1200	100	350	600				20	25	30	35							
									R.S.(ohm-m)			TDS(mg/l)																
									0	50	100	150	0	100	200	300	20	25	30	100	250	500	100	250	400	0	25	50
400	808	Dwyka	[Stratigraphic Column]	Shale, grey, with intercalated Siltstone dominating with depth	 <p>408.05m 409.0m EOH</p>	[Gamma Log]	[SP Log]	[Porosity Log]	[Point R. Log]	[Temp. Log]	[Caliper Log]	[Penet. Rate Log]	400															
410	798												410															
420	788												420															
430	778												430															
440	768												440															
450													450															

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.40098  
Longitude : E 19.62489  
Elevation : 1,258.05mASL  
Drilling Depth : 53.0m  
SWL : 45.32mBGL

Commenced : 08/May/2000  
Completed : 11/May/2000  
Pumping Test Date : 15 - 16/Sep/2000  
Yield : 0.1 m<sup>3</sup>/hr  
Farm Name : Okanyama Aminuis



Pacific Consultants International

# BOREHOLE LOG J-4K WW39845

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The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.40098  
Longitude : E 19.62489  
Elevation : 1,258.05mASL  
Drilling Depth : 53.0m  
SWL : 45.32mBGL

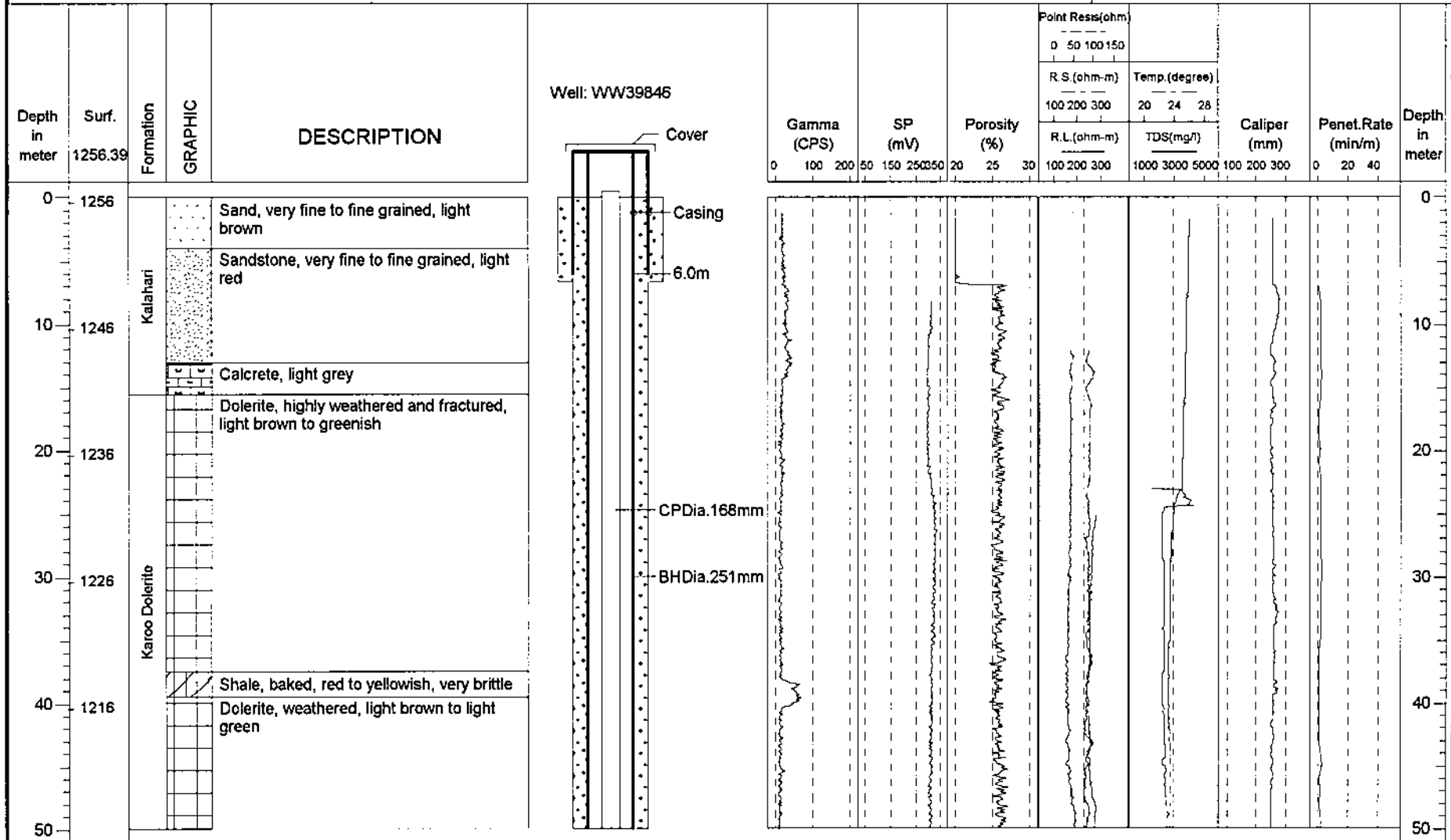
Commenced : 08/May/2000  
Completed : 11/May/2000  
Pumping Test Date : 15 - 16/Sep/2000  
Yield : 0.1 m<sup>3</sup>/hr  
Farm Name : Okanyama Aminuis

Depth in meter	Surf. 1258.05	Formation	GRAPHIC	DESCRIPTION	Well: WW39845	Gamma (CPS)	SP (mV)	Porosity (%)	Point Resis(ohm)		Temp.(degree)	Caliper (mm)	Penet.Rate (min/m)	Depth in meter
									R.S.(ohm-m)	R.L.(ohm-m)				
50	1208	Karoo Dolerite Formation												50
60	1198													60
70	1188													70
80	1178													80
90	1168													90
100														100

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.40049  
Longitude : E 19.62577  
Elevation : 1,256.39mASL  
Drilling Depth : 204.0m  
SWL : 58.99mBGL

Commenced : 20/Apr/2000  
Completed : 08/May/2000  
Pumping Test Date : 7 - 14/Oct/2000  
Yield : 7.5 m<sup>3</sup>/hr  
Farm Name : Okanyama Amuis



SE

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.40049  
Longitude : E 19.62577  
Elevation : 1,256.39mASL  
Drilling Depth : 204.0m  
SWL : 58.99mBGL

Commenced : 20/Apr/2000  
Completed : 08/May/2000  
Pumping Test Date : 7 - 14/Oct/2000  
Yield : 7.5 m<sup>3</sup>/hr  
Farm Name : Okanyama Amuis

Depth in meter	Surf. 1256.39	FORMATION	GRAPHIC	DESCRIPTION	Well: WW39846		Gamma (CPS)	SP (mV)	Porosity (%)	Point Resist (ohm)		Caliper (mm)	Penet. Rate (min/m)	Depth in meter
					R.S. (ohm-m)	Temp. (degree)				R.L. (ohm-m)	TDS (mg/l)			
50	1206	Karoo Dolerite Formation		Sandstone, fine grained, light brown, hard (baking effect of dolerite)	Casing SWL 53.83m CP Dia. 168mm 58.32m 59.65m								50	
60	1196			Sandstone, fine to coarse grained, light brown									60	
70	1186			Sandstone, medium grained, light grey, muscovite and feldspar									70	
80	1176	Aueb A5		Sandstone, fine to medium grained, light brown	SP Dia. 168mm 83.05m								80	
90	1166			Shale, white to reddish, soft									90	
100		Aueb A3		Sandstone, light brown to brown, biotite rich	BH Dia. 200mm								100	

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.40049  
Longitude : E 19.62577  
Elevation : 1,256.39mASL  
Drilling Depth : 204.0m  
SWL : 58.99mBGL

Commenced : 20/Apr/2000  
Completed : 08/May/2000  
Pumping Test Date : 7 - 14/Oct/2000  
Yield : 7.5 m3/hr  
Farm Name : Okanyama Amuis

Depth in meter	Surf. 1256.39	Formation	GRAPHIC	DESCRIPTION	Well: WW39846	Gamma (CPS)	SP (mV)	Porosity (%)	Point Resist(ohm)		Caliper (mm)	Penet.Rate (min/m)	Depth in meter		
									R.S. (ohm-m)	Temp. (degree)					
						0 100 200	50 150 250	25 30	100 200 300	20 24 28	100 200 300	0 20 40			
						0 100 200	50 150 250	25 30	R.L. (ohm-m)	TDS(mg/l)	1000 3000 5000	100 200 300	0 20 40		
100	1156	Auob A3		Sandstone, fine grained, white to light reddish, with light whitish to green SHALE	101.2m								100		
110	1146			Sandstone, fine to medium grained, light pink	107.56m								110		
120	1136				113.1m								120		
		Auob A2		Shale, Mudstone, Siltstone, light brown to brown, with very fine to fine grained Sandstone	124.8m										
130	1126														
140	1116				BHDia.200mm								140		
150				Shale, black									150		

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.40049  
Longitude : E 19.62577  
Elevation : 1,256.39mASL  
Drilling Depth : 204.0m  
SWL : 58.99mBGL

Commenced : 20/Apr/2000  
Completed : 08/May/2000  
Pumping Test Date : 7 - 14/Oct/2000  
Yield : 7.5 m3/hr  
Farm Name : Okanyama Amuis

Depth in meter	Surf. 1256.39	Formation	GRAPHIC	DESCRIPTION	Well: WW39846	Gamma (CPS)	SP (mV)	Porosity (%)	Point Resis(ohm)		Caliper (mm)	Penet.Rate (min/m)	Depth in meter
									R.S.(ohm-m)	Temp.(degree)			
						0 100 200	50 150 250350	20 25 30	100 200 300	20 24 28	100 200 300	0 20 40	
									R.L.(ohm-m)	TDS(mg/l)			
									1000 3000 5000				
150	1106	Auob A2											150
160	1096	Auob A1		Sandstone, medium grained, red, fining downwards, with intercalated Shale	155.36m SP Dia. 168mm 158.25m								160
170	1086			164.27m SP Dia. 168mm 175.97m									
180	1076	U. Mukorob		Sandstone, very fine grained, with intercalated Shale, Siltstone	181.97m 185.0m EOH Cement								180
190	1066			BHDia. 200mm Backfill									
200													200

The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.40049  
Longitude : E 19.62577  
Elevation : 1,256.39mASL  
Drilling Depth : 204.0m  
SWL : 58.99mBGL

Commenced : 20/Apr/2000  
Completed : 08/May/2000  
Pumping Test Date : 7 - 14/Oct/2000  
Yield : 7.5 m3/hr  
Farm Name : Okanyama Amuis

Depth in meter	Surf. 1256.39	Formation	GRAPHIC	DESCRIPTION	Well: WW39846	Gamma (CPS)	SP (mV)	Porosity (%)	Point Resist(ohm)		Caliper (mm)	Penet.Rate (min/m)	Depth in meter
									0 50 100 150	R.S.(ohm-m)			
						0 100 200	50 150 250 350	20 25 30	100 200 300	1000 3000 5000	100 200 300	0 20 40	
200	1056	U. Mukorob		Shale, dark grey to black, yellow to red									200
210	1046				204.0m								210
220	1036												220
230	1026												230
240	1016												240
250													250

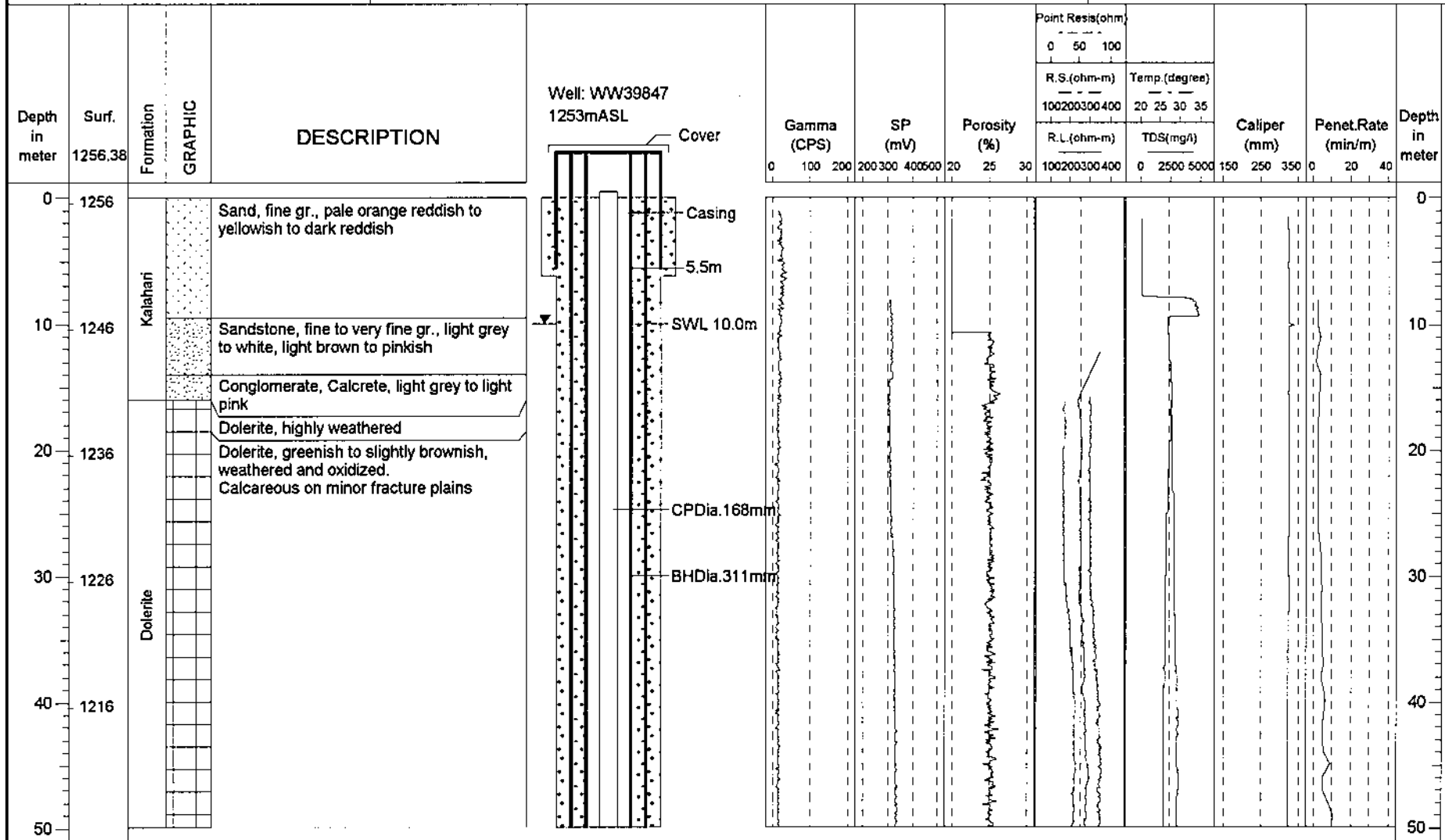
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The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.40105  
Longitude : E 19.62621  
Elevation : 1,256.38m  
Drilling Depth : 356m  
SWL : 10.00mBGL

Commenced : 26/Apr/2000  
Completed : 11/May/2000  
Pumping Test Date : 28/May - 3/June/2000  
Yield : 12.0 m<sup>3</sup>/hr  
Farm Name : Okanyama Aminuis

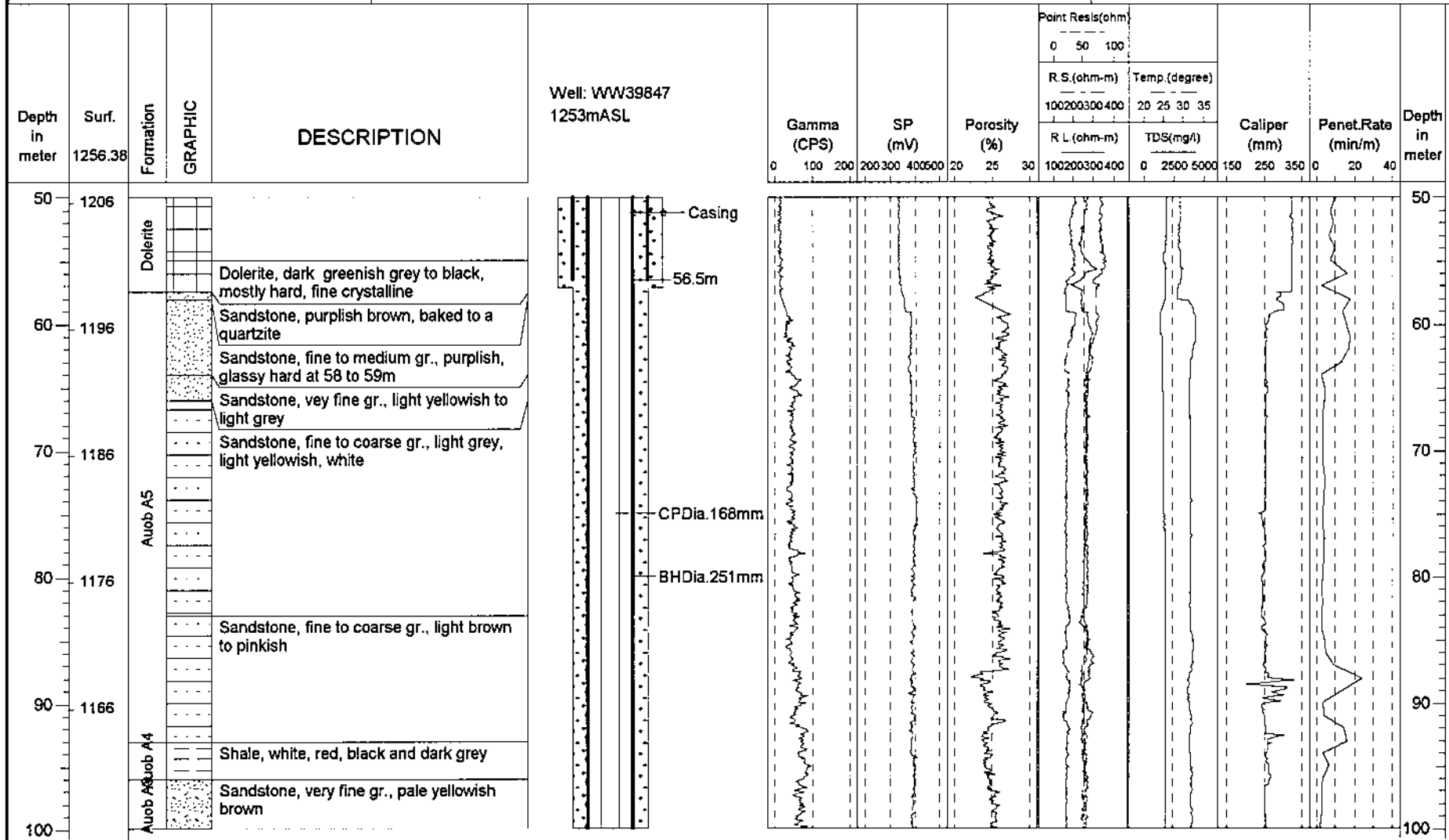


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The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stampriet) Artesian Basin

Latitude : S 23.40105  
Longitude : E 19.62621  
Elevation : 1,256.38m  
Drilling Depth : 356m  
SWL : 10.00mBGL

Commenced : 26/Apr/2000  
Completed : 11/May/2000  
Pumping Test Date : 28/May - 3/June/2000  
Yield : 12.0 m<sup>3</sup>/hr  
Farm Name : Okanyama Aminuis



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The Study on  
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Kalahari (Stampriet) Artesian Basin

Latitude : S 23.40105  
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SWL : 10.00mBGL

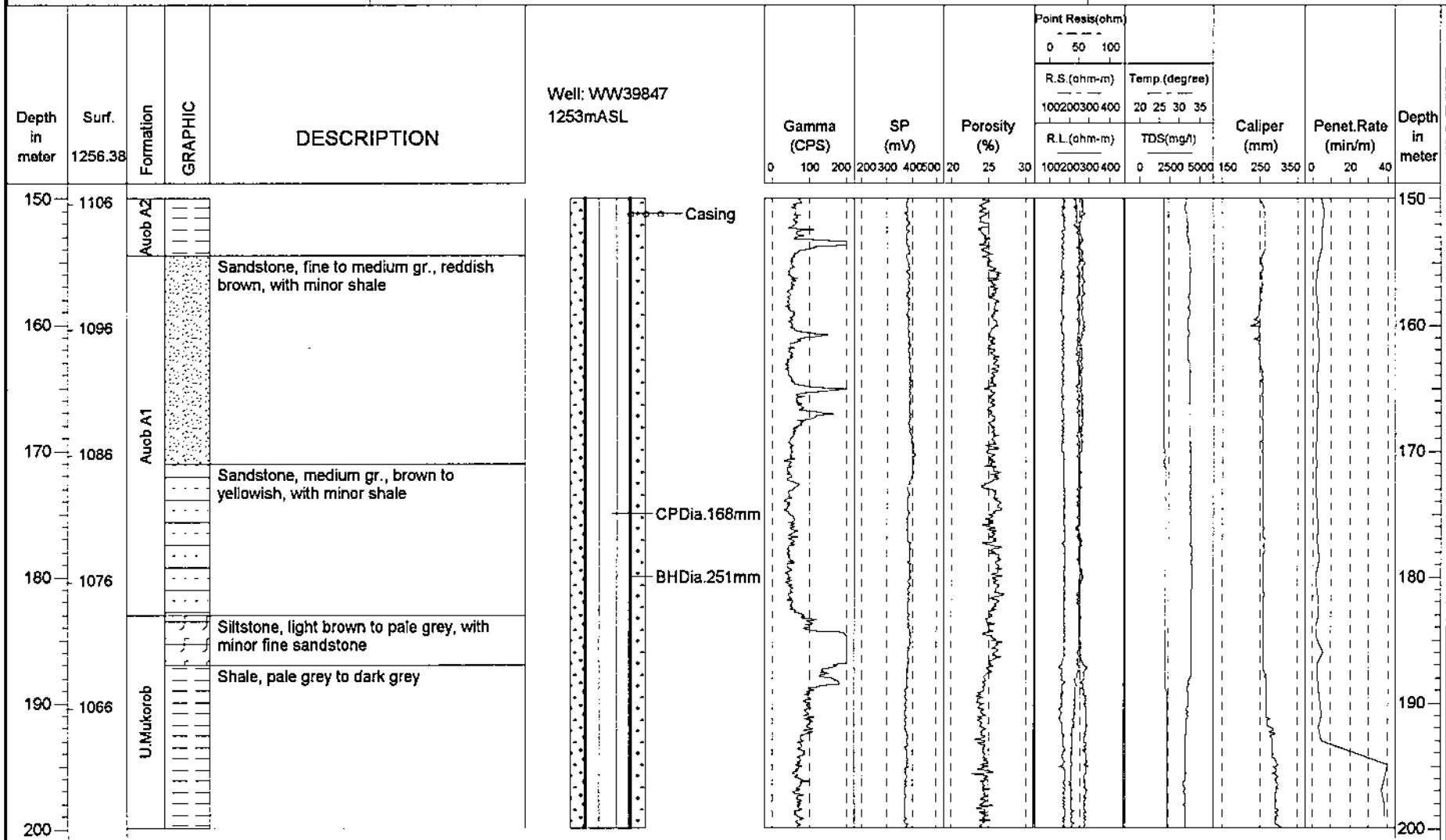
Commenced : 26/Apr/2000  
Completed : 11/May/2000  
Pumping Test Date : 28/May - 3/June/2000  
Yield : 12.0 m<sup>3</sup>/hr  
Farm Name : Okanyama Aminuis

Depth in meter	Surf. 1256.38	Formation	GRAPHIC	DESCRIPTION	Well: WW39847 1253mASL	Gamma (CPS)	SP (mV)	Porosity (%)	Point Resist(ohm)		Caliper (mm)	Penet.Rate (min/m)	Depth in meter			
									R.S (ohm-m)	Temp (degree)						
									0 50 100	20 25 30 35						
									100200300400	0 2500 5000	150 250 350	0 20 40				
									0 100 200 200 300 400 500	20 25 30	100200300400	0 2500 5000	150 250 350	0 20 40		
100	1156	Auob A3		Sandstone, fine to medium gr., light brown to light grey									100			
110	1146												110			
120	1136												120			
130	1126	Auob A2		Sandstone, medium gr., reddish, with intercalated shale									130			
					Shale, olive green to orange yellow to dark grey										140	
140	1116												140			
150													150			

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									R.S.(ohm-m)	Temp.(degree)							
									0 50 100								
									100200300400	20 25 30 35							
									R.L.(ohm-m)	TDS(mg/l)							
									0 100 200	200 300 400 500	20 25 30	100200300400	0 2500 5000	150 250 350	0 20 40		
200	1056	U.Mukorob		Sandstone, very fine to fine gr., light grey, with intercalated shale									200				
210	1046												210				
220	1036												220				
230	1026												230				
240	1016											240					
250												250					

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Farm Name : Okanyama Aminuis

Depth in meter	Surf. 1256.38	Formation	GRAPHIC	DESCRIPTION	Well: WW39847 1253mASL	Gamma (CPS)	SP (mV)	Porosity (%)	Point Resis(ohm)		Caliper (mm)	Penet. Rate (min/m)	Depth in meter
									0 50 100	R.S.(ohm-m)			
250	1006	U. Mukorob		Shale, light grey									250
260	996			Shale, light grey, dropstones									260
270	986	L. Mukorob		Shale, grey to dark grey, with intercalated minor fine to medium sandstone								270	
280	976			280									
290	966												290
300													300

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Yield : 12.0 m<sup>3</sup>/hr  
Farm Name : Okanyama Aminuis

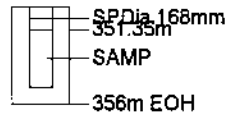
Depth in meter	Surf. 1256.38	Formation	GRAPHIC	DESCRIPTION	Well: WW39847 1253mASL	Gamma (CPS)	SP (mV)	Porosity (%)	Point Resist(ohm)		Caliper (mm)	Penet.Rate (min/m)	Depth in meter	
									R.S.(ohm-m)	Temp.(degree)				
									0 50 100	20 25 30 35				
									100 200 300 400	100 200 300 400	150 250 350	0 20 40		
									0 100 200 300 400	0 2500 5000				
300	956	L. Mukorob		Shale, dark grey to black. Rare scattered pyrite from 310 to 320m	CP Dia. 168mm BHD Dia. 200mm 328.0m								300	
310	946			310										
320	936			320										
330	926	Nossob		Sandstone, coarsening upwards from fine to medium gr., light grey, grains generally well sorted and rounded	SP Dia. 168mm								330	
340	916			Sandstone, coarsening upwards from very fine to coarse gr., light grey, biotite including									340	
350													350	

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Farm Name : Okanyama Aminuis

Depth in meter	Surf. 1256.38	Formation	GRAPHIC	DESCRIPTION	Well: WW39847 1253mASL	Gamma (CPS)	SP (mV)	Porosity (%)	Point Resist(ohm)		Caliper (mm)	Penet. Rate (min/m)	Depth in meter
									R.S.(ohm-m)	Temp (degree)			
350	906	Dwyka		Sandstone, fine to very fine gr., grey, with intercalated shale with well rounded pebbles								350	
360	896												360
370	886												370
380	876												380
390	866												390
400													400



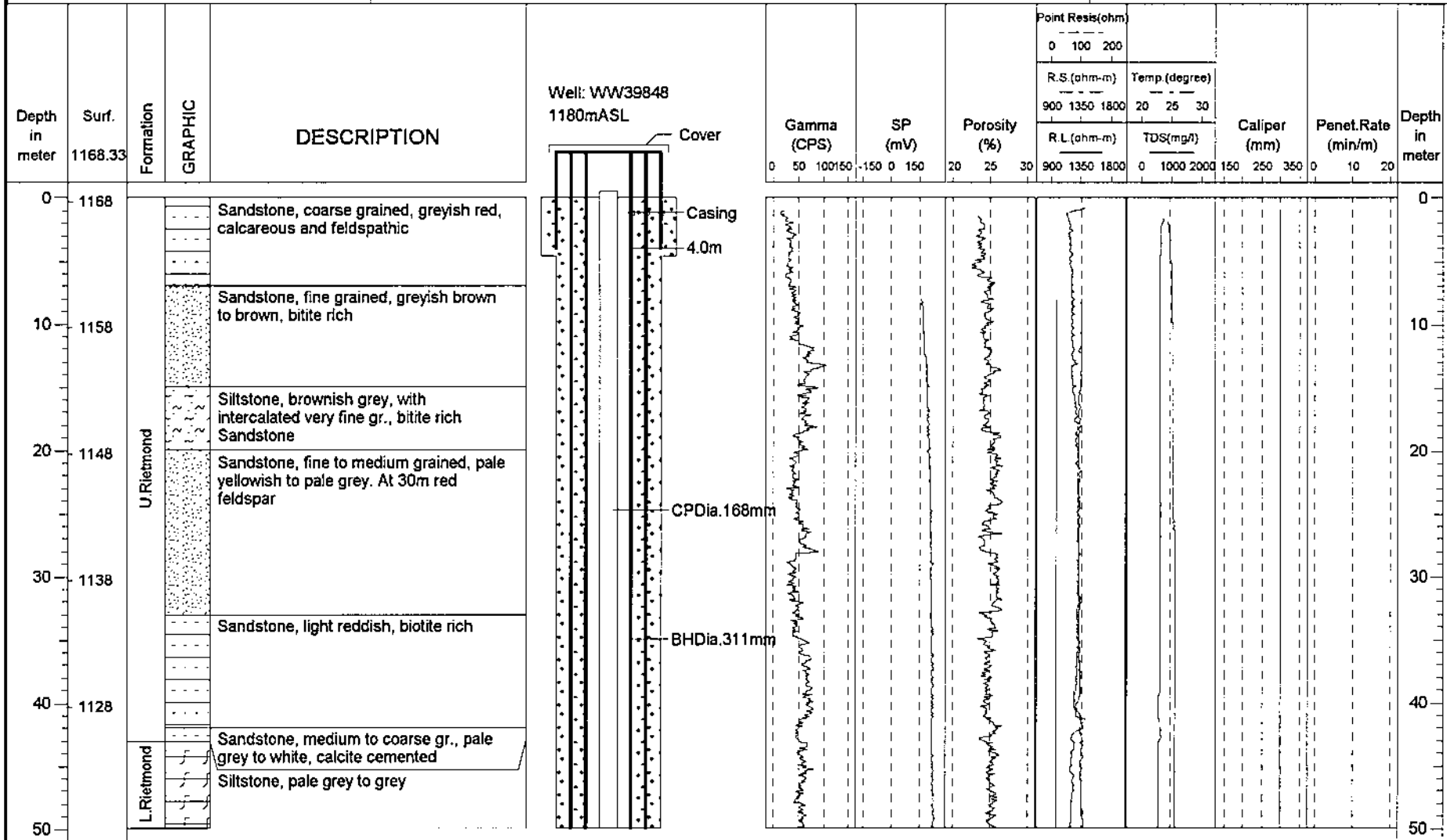
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The Study on  
the Groundwater Potential Evaluation  
and Management Plan in the Southeast  
Kalahari (Stamriet) Artesian Basin

Latitude : S 24.32824  
Longitude : E 18.39794  
Elevation : 1,168.33mASL  
Drilling Depth : 187.0m  
SWL :

Commenced : 05/Aug/2000  
Completed : 13/Aug/2000  
Pumping Test Date : 20 - 24/Aug/2000  
Yield : 0.8m<sup>3</sup>/h  
Farm Name : Maritzville(R134)



The Study on  
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Latitude : S 24.32824  
Longitude : E 18.39794  
Elevation : 1,168.33mASL  
Drilling Depth : 187.0m  
SWL :

Commenced : 05/Aug/2000  
Completed : 13/Aug/2000  
Pumping Test Date : 20 - 24/Aug/2000  
Yield : 0.8m<sup>3</sup>/h  
Farm Name : Maritzville(R134)

Depth in meter	Surf. 1168.33	Formation	GRAPHIC	DESCRIPTION	Well: WW39848 1180mASL	Gamma (CPS)	SP (mV)	Porosity (%)	Point Resist(ohm)		Caliper (mm)	Penet.Rate (min/m)	Depth in meter		
									R.S.(ohm-m)					Temp.(degree)	
									900	1350				1800	20
50	1118	L.Rietmond		Sandstone, medium to coarse grained, pale brown to white, porous and friable									50		
60	1108		Sandstone, medium grained, pale grey to pale reddish brown, porous	60											
70	1098		Sandstone, coarse grained, pale yellowish to white	70											
80	1088	Auob		Sandstone, medium to very coarse grained, downwards coarsening									80		
90	1078		Sandstone, fine grained, reddish brown to pale yellowish, biotite	90											
100		U.Mukondb			100										

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The Study on  
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Drilling Depth : 187.0m  
SWL :

Commenced : 05/Aug/2000  
Completed : 13/Aug/2000  
Pumping Test Date : 20 - 24/Aug/2000  
Yield : 0.8m<sup>3</sup>/h  
Farm Name : Maritzville(R134)

Depth in meter	Surf. 1168.33	Formation	GRAPHIC	DESCRIPTION	Well: WW39848 1180mASL	Gamma (CPS)	SP (mV)	Porosity (%)	Point Resis(ohm)			Caliper (mm)	Penet.Rate (min/m)	Depth in meter
									0	100	200			
									R.S.(ohm-m)					
900 1350 1800			20 25 30											
R.L.(ohm-m)			TDS(mg/l)											
900 1350 1800			0 1000 2000											
150 250 350			0 10 20											
100	1068	U. Mukorob		Sandstone, medium grained, reddish brown, with intercalated grey Shale biotite in layer	Casing								100	
110	1058	L. Mukorob		Shale, grey, bituminous at 109m, carbonaceous between 123 to 126m									CP Dia. 168mm	110
120	1048	L. Mukorob			BHDia. 251mm								120	
130	1038												130	
140	1028												140	
150													150	

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Elevation : 1,168.33mASL  
Drilling Depth : 187.0m  
SWL :

Commenced : 05/Aug/2000  
Completed : 13/Aug/2000  
Pumping Test Date : 20 - 24/Aug/2000  
Yield : 0.8m3/h  
Farm Name : Maritzville(R134)

Depth in meter	Surf. 1168.33	Formation	GRAPHIC	DESCRIPTION	Well: WW39848 1180mASL	Gamma (CPS)	SP (mV)	Porosity (%)	Point Resis(ohm)		Caliper (mm)	Penet.Rate (min/m)	Depth in meter		
									0 100 200	Temp.(degree)					
									R.S.(ohm-m)	20 25 30					
									900 1350 1800						
									R.L.(ohm-m)	TDS(mg/l)					
									0 50 100150	-150 0 150	20 25 30	900 1350 1800	0 1000 2000	150 250 350	0 10 20
150	1018	L.Mukorob											150		
160	1008	Nossob		Sandstone, fine to medium grained, pale to white, micaceous in place									160		
170	998			Sandstone, very fine grained, pale grey, with intercalated grey Siltstone, micaceous in laminae										170	
				Siltstone, light grey											
				Sandstone, medium grained, with intercalated Siltstone											
180	988	Dwyka		Shale, grey									180		
				Mudstone, dropstones											
190	978			Shale, grey									190		
200													200		

