DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

Rept.Bk.No. 79/130

THE NORTHEAST TRANSIT CORRIDOR:

FOUNDATION INVESTIGATION

GEOLOGICAL SURVEY

By

J.C. BEAL

MAY, 1980.

D.M.E. No.: 207/79
Eng. No.: 1079/24

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THE NORTHEAST TRANSIT CORRIDOR:

FOUNDATION INVESTIGATION

ABSTRACT

A total of 35 cable tool foundation investigation holes were drilled, along the centre line of the proposed northeast corridor route from McKinnon Parade to Tea-Tree Shopping Plaza, Modbury.

The cable tool holes intersected siltstone bedrock beneath clay, silt, sand and gravel 5 to 20 m thick. In places the bedrock was completely weathered up to 2 to 5 m beneath the soils. Standard Penetration Tests were carried out at 1.5 m intervals in every hole to assess bearing strength of soil materials. Holes drilled adjacent to the River Torrens gave the static groundwater level approximately that of the river level. Holes drilled along the corridor between the River Torrens and the Modbury Shopping Centre were dry except for two holes (GS 3S; GS 3N) drilled at the Lyons Road grade separation; here the S.W.L. was intersected at 4.0 m below ground surface.

INTRODUCTION

On behalf of the Department of Transport the consultants for the Northeast Transit Corridor requested the Department of Mines and Energy in May 1979 to carry out investigation drilling along the corridor from McKinnon Parade, North Adelaide, to Tea Tree Shopping Plaza, Modbury.

The purpose of the investigation was to provide engineering geological logs and sections for each site. All geological sections have been drawn looking upstream by request of the client. Detailed comments on foundation conditions were not required by the client.

METHOD OF INVESTIGATION

The cable tool holes were drilled using 100 mm diameter push tubes 300 mm long. The sample was extracted from each tube into a plastic bag, logged, sealed with a rubber band, and placed into core box. The hole number, sample depth, and number of blows taken to penetrate 300 mm was written on the plastic bag with a felt tipped pen. The number of blows and the description of the sample were recorded on a foundation hole log sheet by the site geologist.

Where penetration by push tube was not possible a star-bit and bailer were used and representative sludge samples collected.

Standard penetration tests (S.P.T.'s) were carried out every 1.50 m using a 37.5 mm diam. split tube. The sample from the S.P.T. (450 mm long) was stored in a plastic bag and the depth interval, number of blows and the hole number written on the bag. The same interval was then reamed out to 75 mm, the reamings kept and logged in the normal way and placed in the core box adjacent to the S.P.T. sample. A 61 mm diam., 60^{o} angle cone was used in areas of coarse sand and fine gravel where the S.P.T. split tube would not penetrate. This method did not allow a sample to be collected but did give a value for N generally in agreement with the N value obtained by the split tube.

All grade separations and bridge sites along the corridor were drilled until an S.P.T. in bedrock gave N values of about 30, or until the push tubes met refusal (i.e.: above 30 blows for 100 mm).

Seven of the holes drilled along the corridor were fitted with piezometers (see Table 1, Appendix 1). Water samples from these holes were analysed for salinity, conductivity and pH (see Appendix 4).

Laboratory tests were carried out on representative samples as an aid to material classification. The samples were tested for moisture content, Atterberg Limits, linear shrinkage, and grading analysis; results are given in Appendix 2.

A summary of the investigation is tabled below:

TABLE 1

LOCATION	No. of holes drilled	Depth (m)	S.P.T. range	S.W.L. (m) below ground level	Geology
Modbury-Lyons Road	8	6-8	3 to 30	DRY to 8.0	Calcrete, Clay, Sil overlying weathered Tertiary Siltstones or Precambrian Meta sediments
Darley Road-McKinnon Parade	30	12-20	2 to 50	4.0 to 15.0	Clay, Silt, Sand & Gravel overlying weathered Blanche Pt. Marl

A summary of the geological conditions encountered along the corridor is shown in figures 2 to 7 and a detailed summary of the results of the investigation is shown in Table 1, Appendix 1.

RESULTS OF INVESTIGATION AND DRILLING

Foundation conditions were generally as predicted by Armstrong (1979) and consisted of an upper zone of silt and clay, overlying sand and gravel, up to 20 m thick. These sediments rest on bedrock which is, in places, completely weathered to soil material up to 2 to 5 metres beneath the river sediments. Although drilling in holes along the corridor route stopped when further penetration by push tube sampling into weathered bedrock was not possible a satisfactory

foundation at this depth cannot necessarily be assumed for the holes finishing in the Blanche Point Marl. The marls can, within tens of millimetres, change from hard very compact to soft moderately compact.

Hole GS4 (DARLEY RD) did not reach bedrock but finished in gravels a short distance above bedrock. This assumption is valid as is shown in the Darley Road cross section (fig. 5).

Hole GS2 south, Grand Junction Road, was drilled below the normal depth, (i.e. below the refusal depth prior to using a star bit), down to the designed excavation limit. This extra drilling proved that the bedrock is rippable and that explosives will not be required.

ACKNOWLEDGEMENTS

Geological logging was carried out by the following:
Department of Mines and Energy Geologists:

C. CONOR, B. EBERHARD, S. BARNETT, X. SIBENALER, M. COBB.

JCB:GU

J.C. BEAL

Geologist

REFERENCES

ARMSTRONG, D., 1979. Northeast Area light rail line-Preliminary geological appraisal. S.A. Dept. Mines Rept. 79/50, (unpubl.).

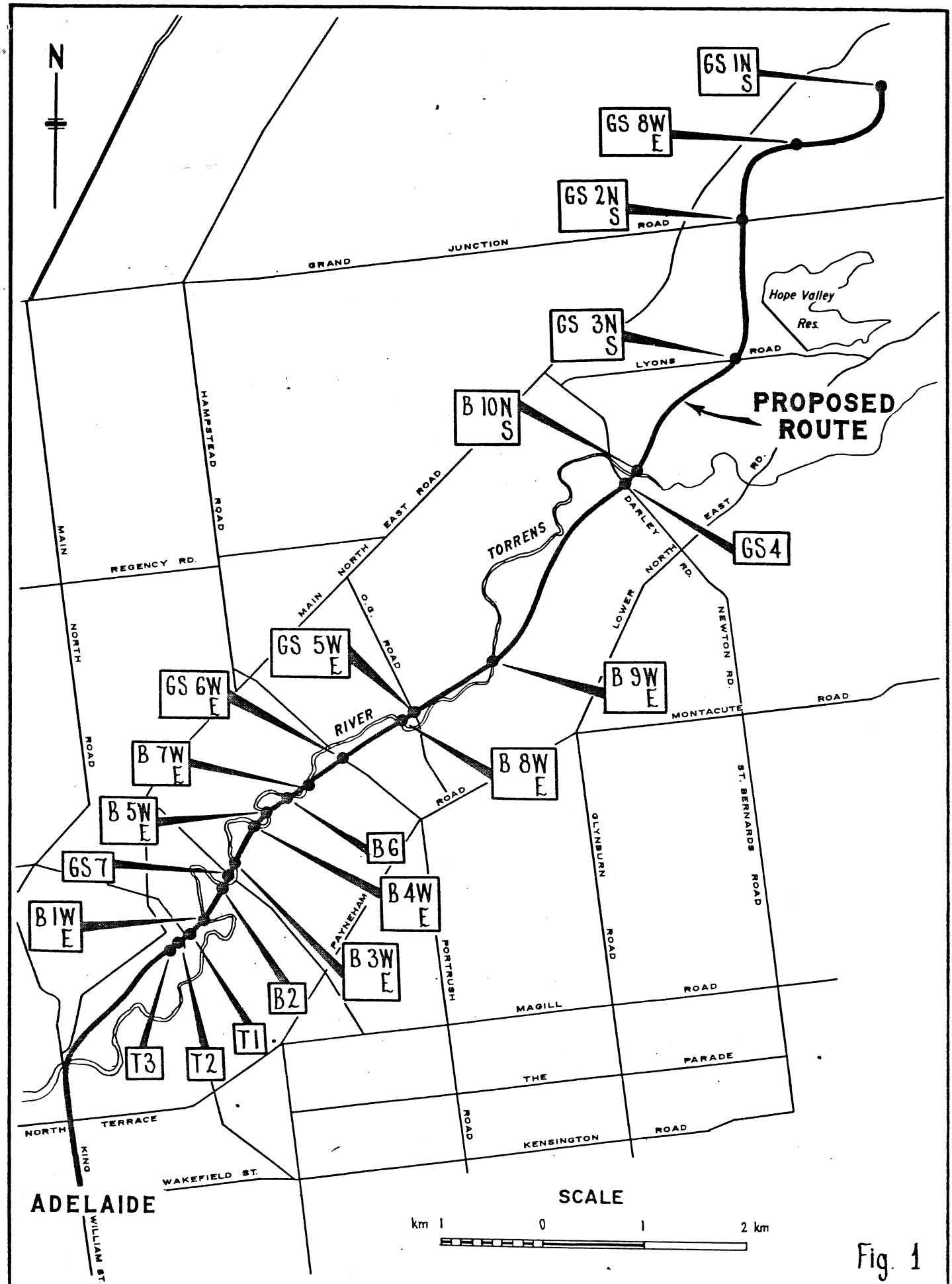


Fig. 1

DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

COMPILED J. Beal	C D O DATE
DRAWN M.R.	SCALE As shown
DATE March 1980	PLAN NUMBER S 14386
CHECKED	

NORTH EAST TRANSIT PROJECT

DRILL HOLE LOCALITY PLAN

843/81

APPENDIX A

SUMMARY OF DRILLING INVESTIGATION

(listed in geographical order from McKinnon Parade to Modbury)

Northeast Transit Corridor
SUMMARY SHEET

Hole No.	Location	Hd. Sect.	Council	E.L. (m)	Depth (m)	Interval sampled for testing	S.W.L.	
T3	McKinnon Parade	Park Lands	Adel C.C.	32.45	20.15	Sealed 'A' Tubes taken	11.0m seapage @ 11.0m	
T2	McKinnon Parade	Park Lands	Adel C.C.	32.48	18.25			
T1	Rose St.	Yat 475	Walkville	32.83	15.9	6.45-6.75		
B1 W	Gilbert St. E&WS Dept.	Yat 298	Walkville	33.46	17.80	-	8.5m	
B1 E	St. Peters Reserve	Adel. 882	St. Peters	26.73	12.85	9.0-9.3	1.0m	*
B2 W	Not Drilled						-	
B2 E	Stephens Terrace R.Torrens	Yat 476	Walkville	34.67	17.72	-	8.3m	
GS 7	Stephens T. (roadside)	Yat 476	Walkville	35.14	17.35	-	11.0m	
B3 W	Stephens T. (walkway)	Yat 476	Walkville	35.28	17.23	-	+w.c. 8.4m	
B3 E	Stephens T. Dunstan's playground	Adel. 882	St. Peters	29.48	10.15	-	w.c. 6.8m	
B4 W	Koolamann	St. Peters 281	St. Peters	37.24	17.15	-	9.7m	*
B4 E	Fuller St.	Walk-ville 477	Walkville	37.38	20.5	20.05-20.5		
B5 W	Fuller St	Walk-ville 477	Walkville	37.36	18.85	-	7.6m	

* Indicates used as an observation bore
Water Level measured during drilling operations

+w.c.: water Cut

B5 E	Lambert St.	St. Peters 282	St. Peters	36.94	18.20	-	7.0m	
B6	Bide St.	St. Peters 282	Paynhm	38.61	19.32	3.45-3.90; 7.35-7.80	7.9m	
B7 W	Landsdowne Terrace (Tip)	Yat Pt. 478	Walkvlle	34.40	14.26		3.5m	
B7 E	Battam's Road	Pay-nham 498	Paynham	37.62	16.70	-	5.3m	
GS 6W	Lwr Portrush	Adel 284	Enfield	41.06	19.20	-		
GS 6E	Lwr Portrush	Adel 284	Enfield	39.83	19.20		w.c. 6.8m	
B8 W	Church St.	Adel	Payneham	36.9	10.55	6.90-7.20; 9.0-10.10	3.1m	*
B8 E	Felixstowe	Yat Pt.490	Enfield	42.74	14.75	14.0-14.45	8.0m	
GS 5W	O.G.Rd	Yat Pt.490	Enfield	43.33	17.40	-		
GS 5E	O.G.Rd	Yat Pt.490	Enfield	43.21	16.35	-	7.6m	
B9 W	Ramsay Ave	Yat Pt.493	Enfield	46.5	14.15	7.65-8.10; 13.85-14.15; 3.75-4.20	8.6	*
B9 E	James St,	Adel Pt.308	Enfield	43.96	9.05		4.9	
GS 4	Darley Rd.	Adel Pt.333	Tea-Tree	56.96	6.95	2.40-2.85; 4.50-4.90	DRY	

B10 S	Darley Rd.	Adel Pt.333	Tea-Tree	59.18	12.5	5.9-6.2 11.45-11.75	9.0m	*
B10 N	Pittwater Drive	Yat Pt.508	Tea-Tree	55.81	7.8	4.6-4.9	4.8m	
GS 3S	Lyons Rd.	Yat 2058	Tea-Tree	78.70	9.95	1.95-2.25 6.5-6.8	6.7m	
GS 3N	Lyons Rd.	Yat 2058	Tea-Tree	79.62	7.95	3.75-4.20	3.0m	
GS 2S	Grand Junc.	Yat 307	Tea-Tree	108.20	7.90	7.60-7.90	DRY	
GS 2N	Grand Junc.	Yat 826	Tea-Tree	109.53	2.65	1.5-1.95	DRY	
GS 8W	Reservoir Rd	Yat	Tea-Tree	116.06	8.70	6.75-7.05 3.90-4.20		
GS 8E	Reservoir Rd.	Yat	Tea-Tree	116.43	6.85			
GS 1S	Smart Rd.	Yat	Tea-Tree	127.4	11.7	7.65- 8.10	DRY	
GS 1N	Smart Rd.	Yat 842	Tea-Tree	130.3	6.85	5.50-5.95	DRY	

APPENDIX B

Results of Laboratory Tests

CONTENTS

EWS DEPARTMENT

Soils Laboratory
SOIL TEST SUMMARY

MINES DEPT — PROJECT NEAPTR.

LOCATION 13.9.79

B.1

BH	Depth METRES	Description	Remarks	M.C. %	Lime %	Dry Densities t/m³			Rel. Density %	Grading				Atterberg Limits			Linear Shrink %
						Insitu	Max.	Min.		Clay	Silt	Sand	Gravel	wL	wP	I.P.	
GS.1 S	7.65-8.10			24.5						20	78	2	-	52.3	32.7	19.6	7.0
GS1 N	5.5-5.9			24.6						20	68	12	-	41.1	31.3	9.8	6.8
GS2.S	7.6-7.9			19.5						12	35	10	43	43.5	29.9	13.6	7.5
GS.2.N	1.5-1.95			22.7						57	25	18	-	109.7	23.9	85.8	23.7
GS.4	2.4-2.85			15.5						17	43	23	17	32.5	18.4	14.1	7.7
GS.4.	4.5-4.9			12.0						12	30	58	-	26.1	17.8	8.3	5.0
B10N	4.6-4.9									-	-	31	52				
B10.S.	5.9-6.2			12.1						15	39	29	17	32.8	16.8	16.0	8.8
B.10.S.	11.45-11.75			26.3						23	77	-	-	40.6	28.7	11.9	5.0
GS3N	3.75-4.2			19.4						23	12	65	-	32.8	13.9	18.9	9.8
GS.3.S.	1.95-2.25			25.2						36	12	26	26	67.3	22.4	44.9	19.0
GS3S	6.5-6.8			17.9						37	25	24	14	47.1	19.4	27.7	12.3
B.6	3.45-3.90			20.4						19	56	25	-	32.8	18.8	14.0	7.5
B.6.	7.35-7.80			20.4						12	41	47	-	27.0	19.3	7.7	3.2

EWS DEPARTMENT

Soils Laboratory
SOIL TEST SUMMARY

B.2.

MINES DEPT. – NEAPTR.

PROJECT

LOCATION 13.9.79.

BH	Depth METRES	Description	Remarks	M.C. %	Lime %	Dry Densities t/m³			Rel. Density %	Grading				Atterberg Limits			Linear Shrink %
						Insitu	Max.	Min.		Clay	Silt	Sand	Gravel	wL	wP	I.P.	
GS8 w4	3.9–4.2			35.0						65	24	6	5	121.8	27.7	94.1	21.5
GS8 w4	6.75–7.05			25.3						24	61	15	–	49.3	32.6	16.7	8.0
T8	6.45–6.75			22.3						32	55	12	3	44.0	20.5	23.5	11.5
B4E	20.05–20.50			59.9						18	30	22	30	72.5	36.5	36.0	9.5
B1E	9.0–9.3			22.7						21	45	33	1	34.2	18.6	13.8	8.3
B8E	14.0–14.45			56.6						23	25	52	–	62.8	37.6	25.2	8.5
B8W	6.9–7.2			26.7						34	51	15	–	45.0	23.8	21.2	12.0
B8W	9.0–10.1			71.4						6	12	18	64	79.0	38.2	40.8	8.1
B7W	3.75–4.2			5.6						10	26	63	1	18.0	16.7	1.3	2.6
B9W	7.65–8.10			89.1						5	9	29	57	24.3	16.1	8.2	6.5
B9W	13.85–14.15			47.9						27	41	27	5	73.7	30.9	42.8	15.9

B.3

EWS DEPARTMENT

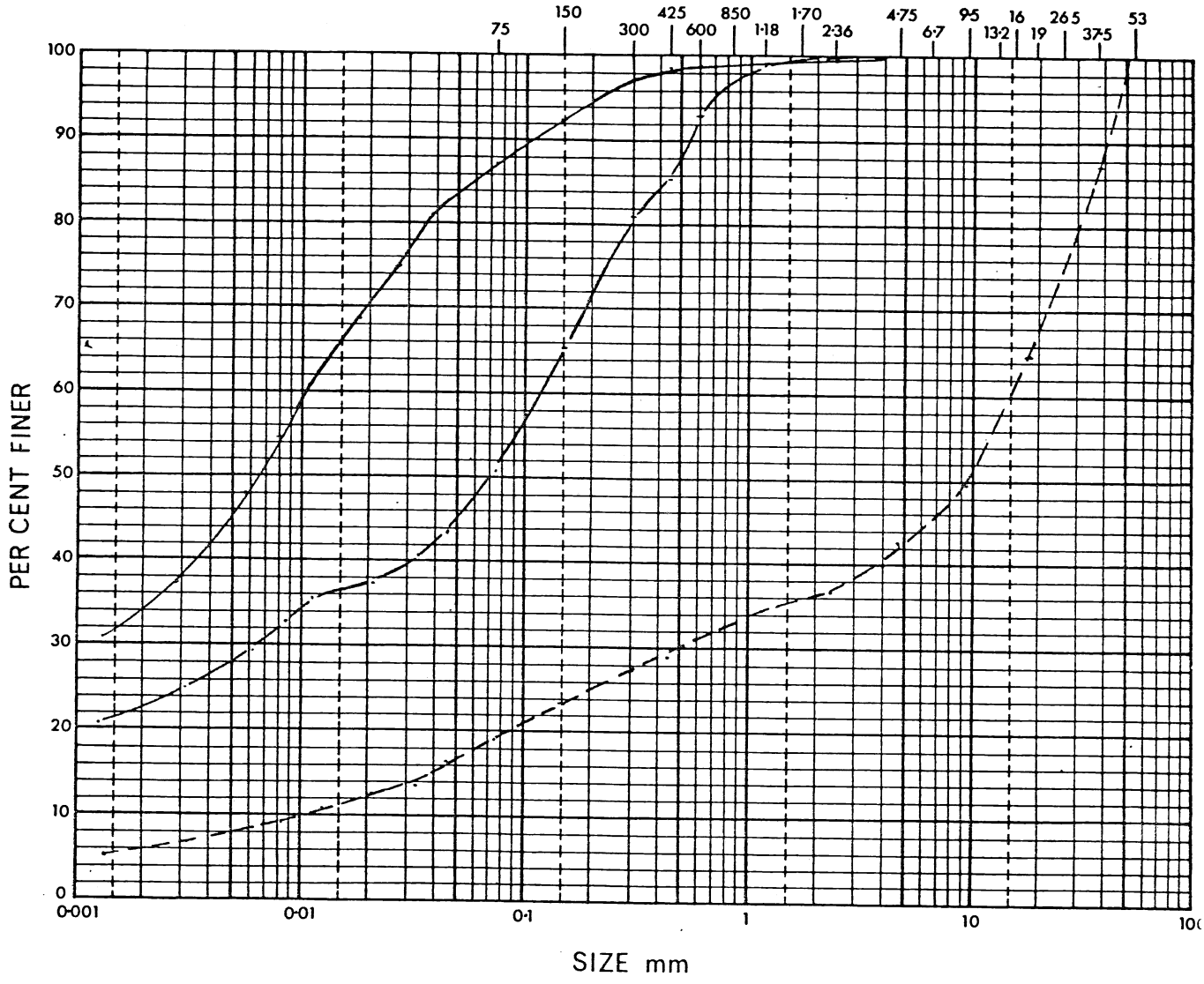
Soils Laboratory
MECHANICAL ANALYSIS

TRIAL HOLE B.8.

DEPTH

PROJECT NEAPTR – MINES DEPT. DATE 16-8-79

LOCATION OPERATOR P.U.



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	GRAVEL
	SILT			SAND			

B.S.S. & M.I.T. Classifications

B.H.	Depth METRES	Description	Line	M.C. %	Lime Cont.	Hydrometer			Sand Fraction				
						Clay	Silt	Sand	-200	Fine	Med.	Coarse	Gravel
B8 WEST	6·9-7·2		———			34	51	15	87	9	5	1	–
B8 WEST	9·0-10·1		– – – –			6	12	18	19	7	6	5	64
B8 EAST	14·0–14·65		—·—·—			23	25	52	51	24	21	7	–
			—x—x—										
			—Δ—Δ—										

B.4

EWS DEPARTMENT

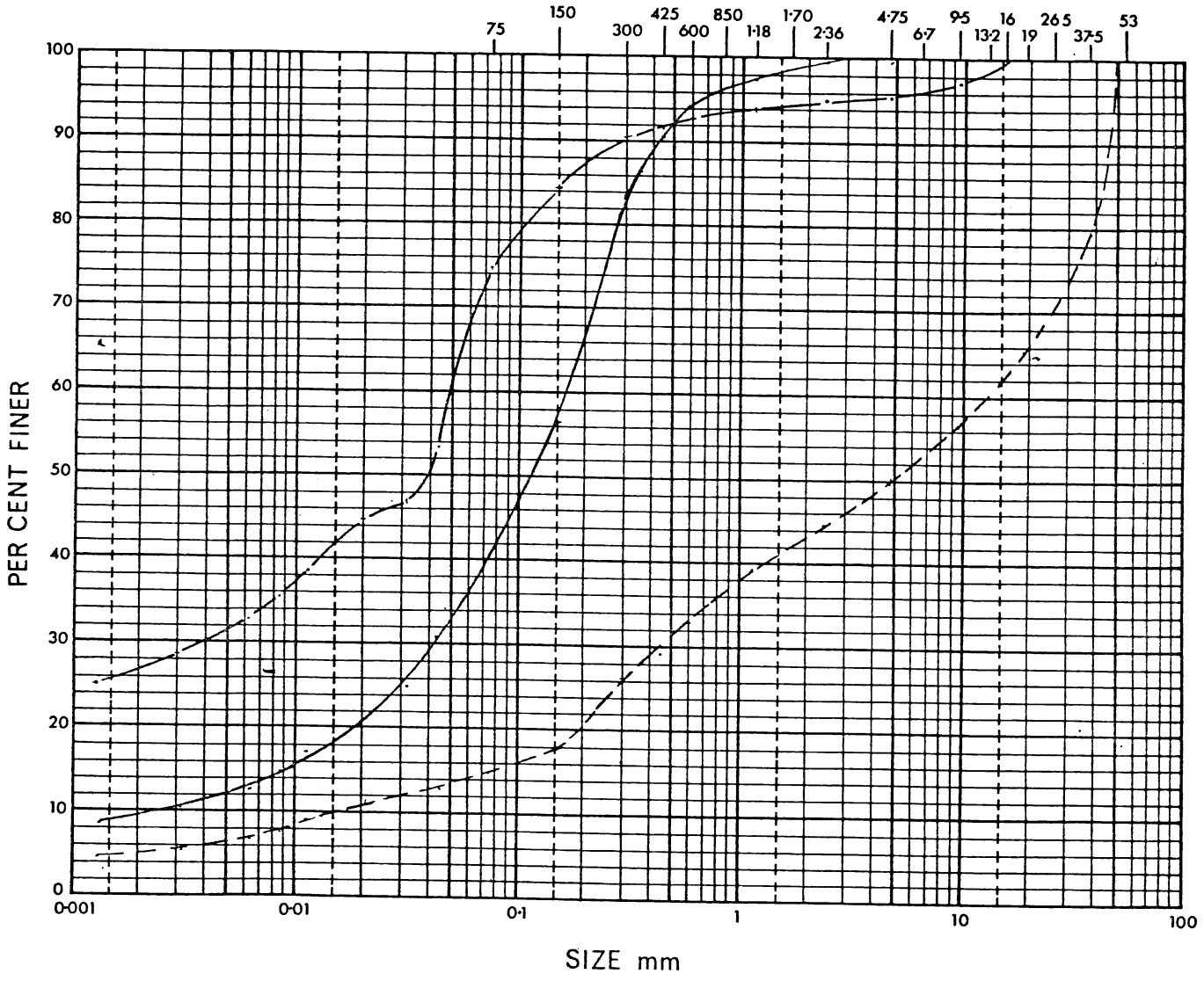
Soils Laboratory
MECHANICAL ANALYSIS

TRIAL HOLE: B9 WEST

DEPTH:

PROJECT NEAPTR - MINES DEPT. DATE 16-8-79.

LOCATION OPERATOR P.U



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	GRAVEL
	SILT			SAND			

B.S.S. & M.I.T. Classifications

B.H.	Depth METRES	Description	Line	M.C. %	Lime Cont.	Hydrometer			Sand Fraction				
						Clay	Silt	Sand	-200	Fine	Med.	Coarse	Gravel
B9 W.	3·75-4·2		———			10	26	63.	40	30	28	5	1
B9 W.	7·65-8·1		— — — —			5	9	29	15	6	13	10	57
B9 W.	13·85-14·15		— · — · —			27	41	27.	74	19	6	2	5
			— x — x										
			— △ — △										

B.5

EWS DEPARTMENT

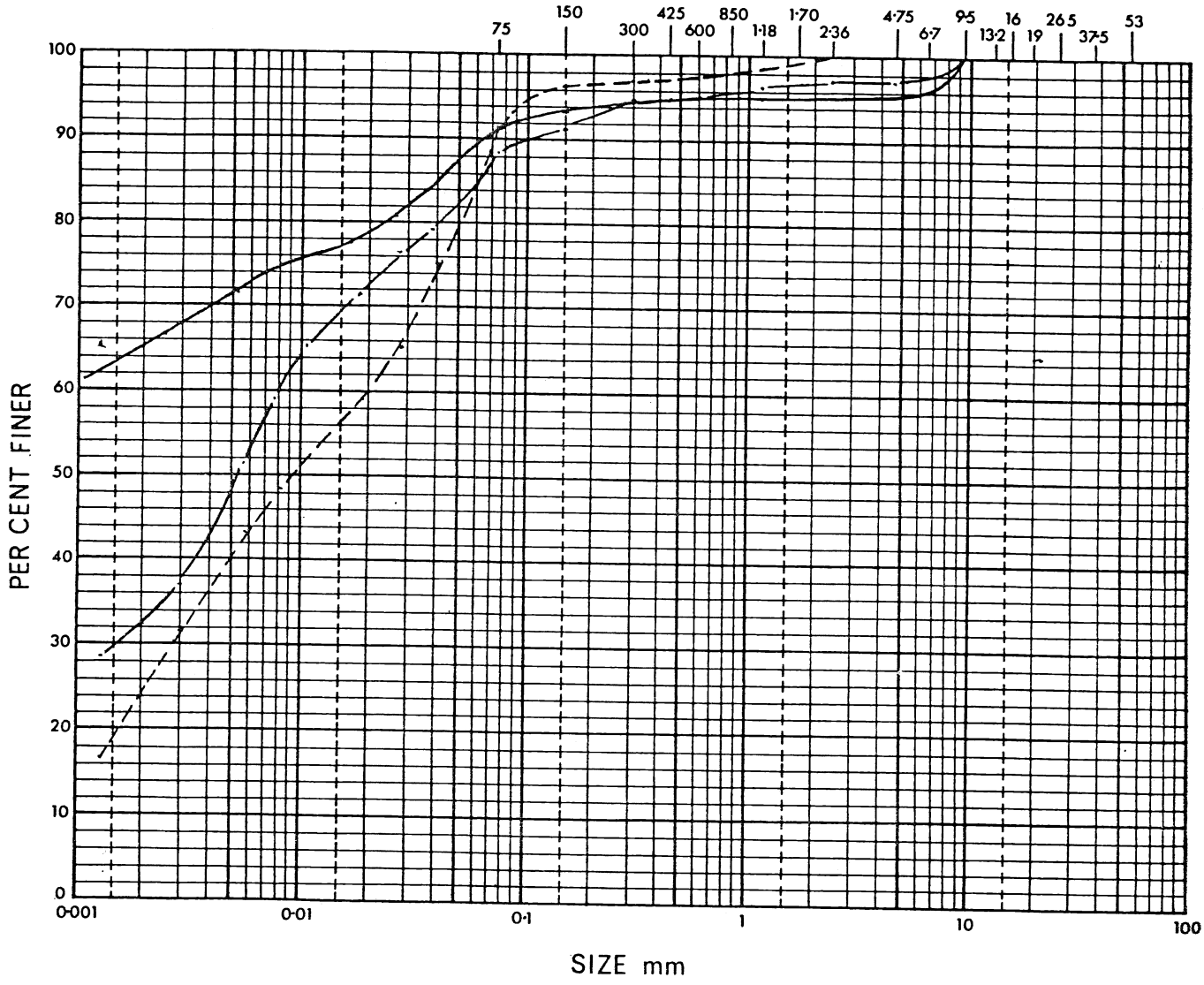
Soils Laboratory
MECHANICAL ANALYSIS

TRIAL HOLE G58W T1

DEPTH

PROJECT NEAPTR. — MINES DEPT. DATE 7-9-79

LOCATION OPERATOR PV.



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	GRAVEL
	SILT			SAND			

B.S.S. & M.I.T. Classifications

B.H.	Depth METRES	Description	Line	M.C. %	Lime Cont.	Hydrometer			Sand Fraction				
						Clay	Silt	Sand	-200	Fine	Med.	Coarse	Gravel
G58W4	3·9-4·2		———			65	24	6	92	5	1	0	5
G58W4	6·75-7·05		— — — —			24	61	15	92	12	1	2	-
T1	6·45-6·75		— · — · —			32	55	12	88	8	2	2	3
			— x — x — Δ — Δ										

B.6.

TRIAL HOLE
B-10 & 6S-1

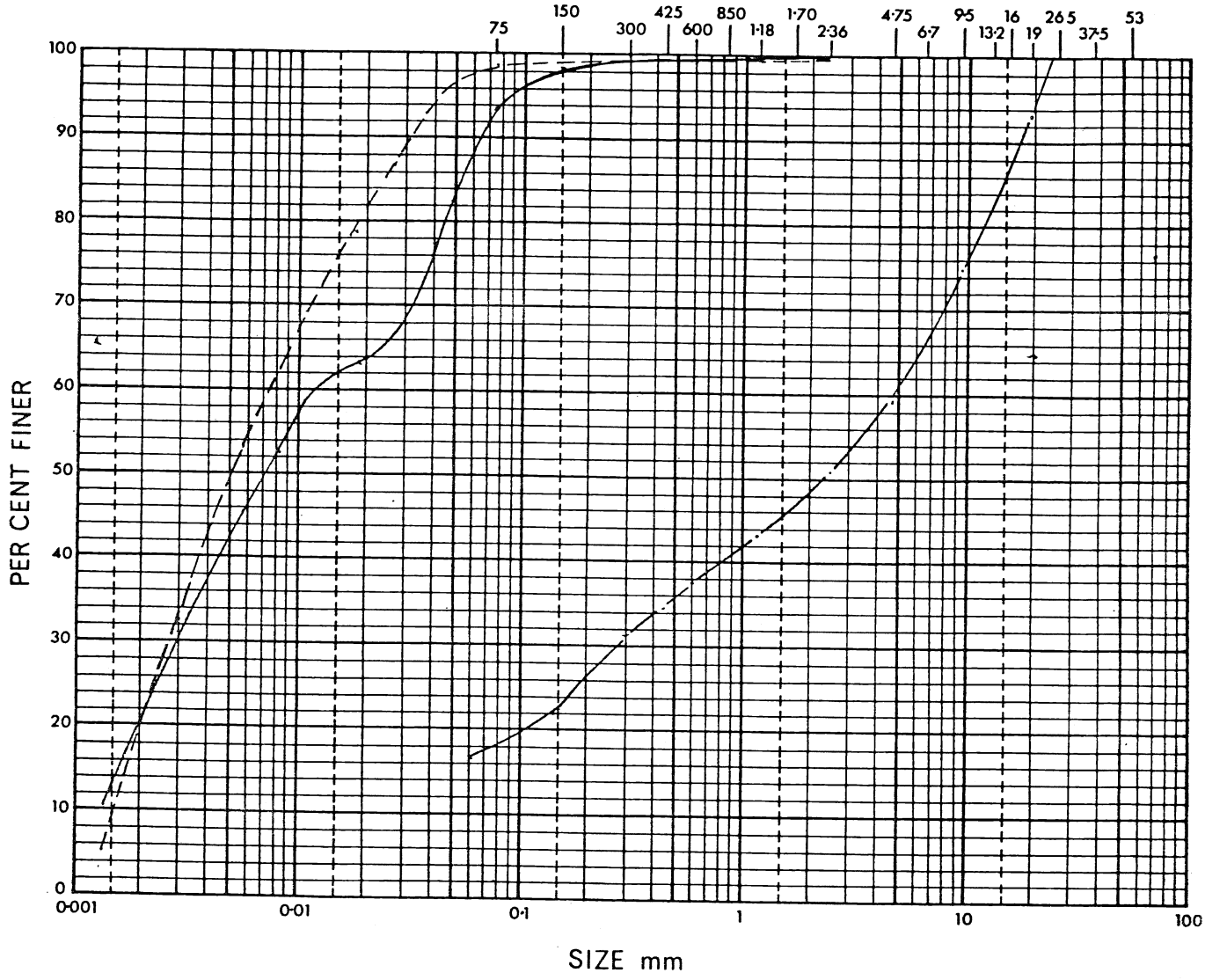
DEPTH

EWS DEPARTMENT

Soils Laboratory
MECHANICAL ANALYSIS

PROJECT NEAPTR – MINES DEPT. DATE 27-7-79.

LOCATION OPERATOR P.U.



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	GRAVEL
	SILT			SAND			

B.S.S. & M.I.T. Classifications

B.H.	Depth	Description	Line	M.C. %	Lime Cont.	Hydrometer			Sand Fraction				
						Clay	Silt	Sand	-200	Fine	Med.	Coarse	Gravel
G.S.IN.	5.5-595		———			20	68	12		11	1	–	–
G.S.I.S.	7.65-8.10		– – – –			20	78	2		1	–	1	–
B10.N.	4.6-4.9		— · — · —			–	–	–	17	9	12	10	52
			— x — x										
			— △ — △										

B.7.

EWS DEPARTMENT

Soils Laboratory
MECHANICAL ANALYSIS

TRIAL HOLE: GS 2

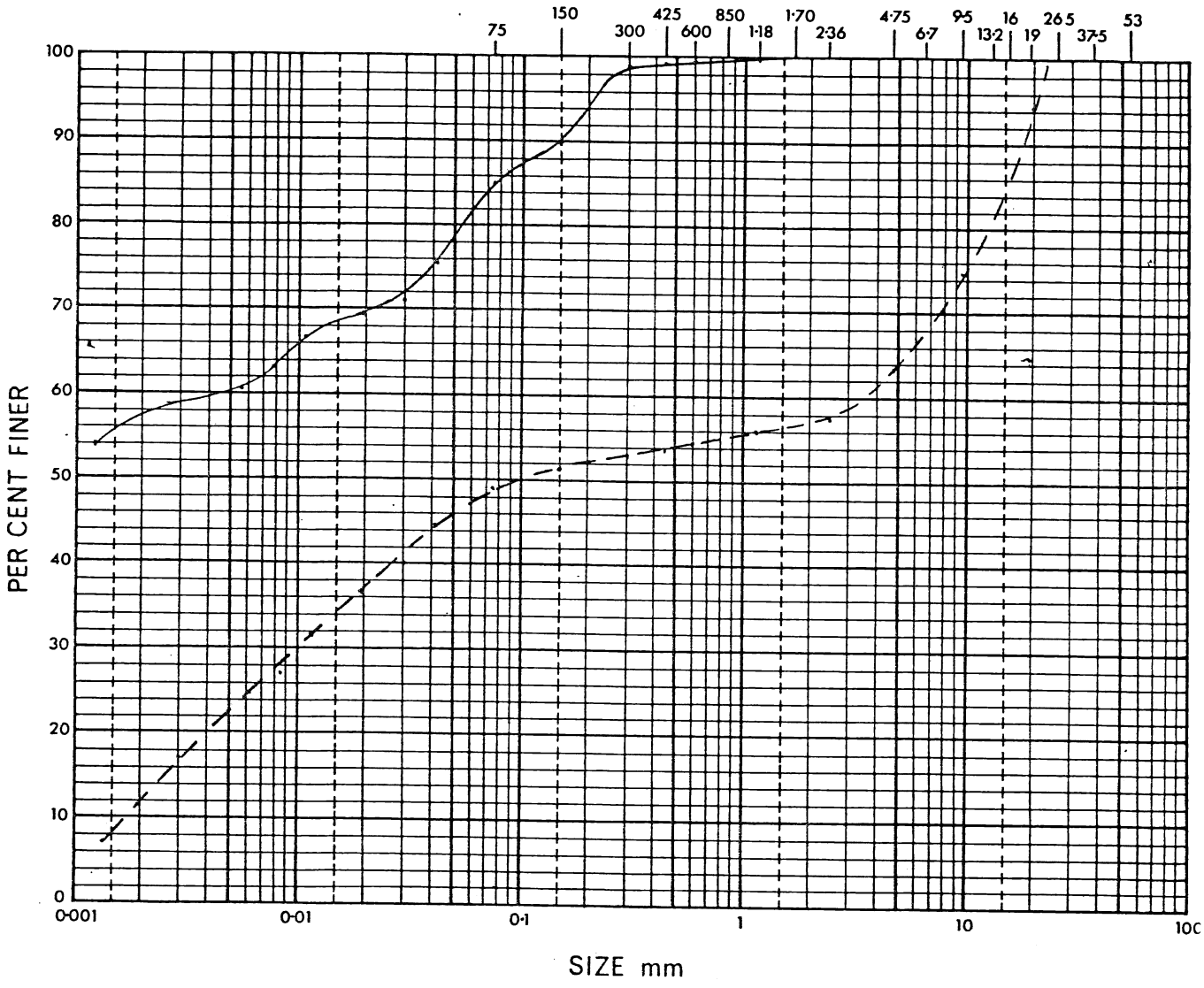
DEPTH:

PROJECT: NEAPTR – MINES DEPT.

DATE: 31-7-79

LOCATION:

OPERATOR: PV & RB



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	GRAVEL
	SILT			SAND			

B.S.S. & M.I.T. Classifications

B.H.	Depth	Description	Line	M.C. %	Lime Cont.	Hydrometer			Sand Fraction				
						Clay	Silt	Sand	-200	Fine	Med.	Coarse	Gravel
GS.2.N.	1·5-1·95		———			57	25	18		12	5	1	
GS.2.S.	7·6-7·9		– – – –			12	35	10		4	3	3	43
			—·—·—										
			—x—x—										
			—Δ—Δ—										

B.8

TRIAL HOLE B-10 & GSA

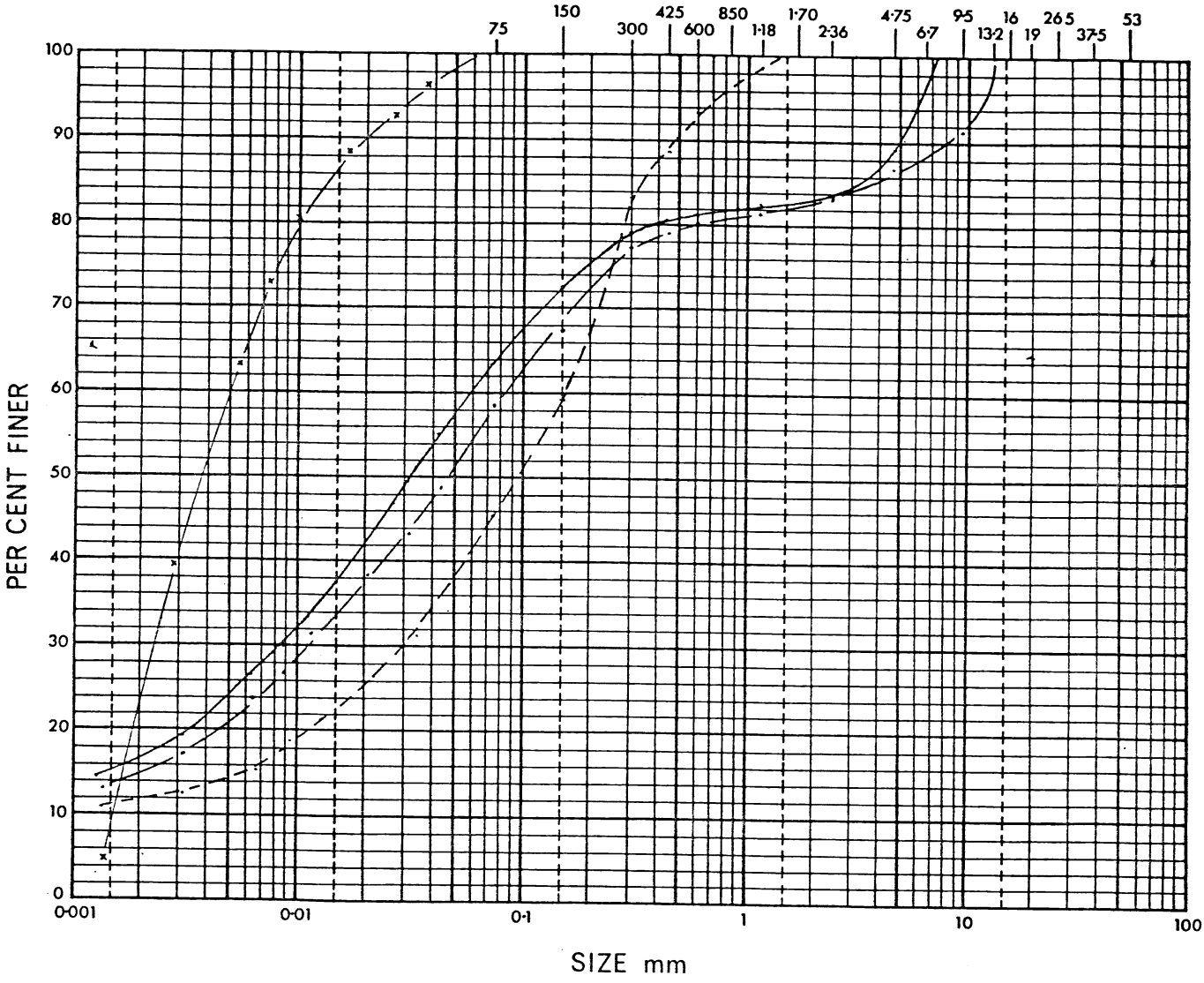
DEPTH

EWS DEPARTMENT

Soils Laboratory
MECHANICAL ANALYSIS

PROJECT NEAPTR – MINES DEPT. DATE 27-7-79

LOCATION OPERATOR P.U.



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	GRAVEL
	SILT			SAND			

B.S.S. & M.I.T. Classifications

B.H.	Depth	Description	Line	M.C. %	Lime Cont.	Hydrometer			Sand Fraction				
						Clay	Silt	Sand	-200	Fine	Med.	Coarse	Gravel
G.S.4	0·4-2·85		———			17	43	23		16	5	2	17
G.S.4	4·5-4·9		— — — —			12	30	58		26	25	7	–
B.10S.	5·9-6·2		— · — · —			15	39	29		18	8	3	17
B10S.	11·45-11·75		— x — x			23	77	–		–	–	–	–
			— △ — △										

B.9.

EWS DEPARTMENT

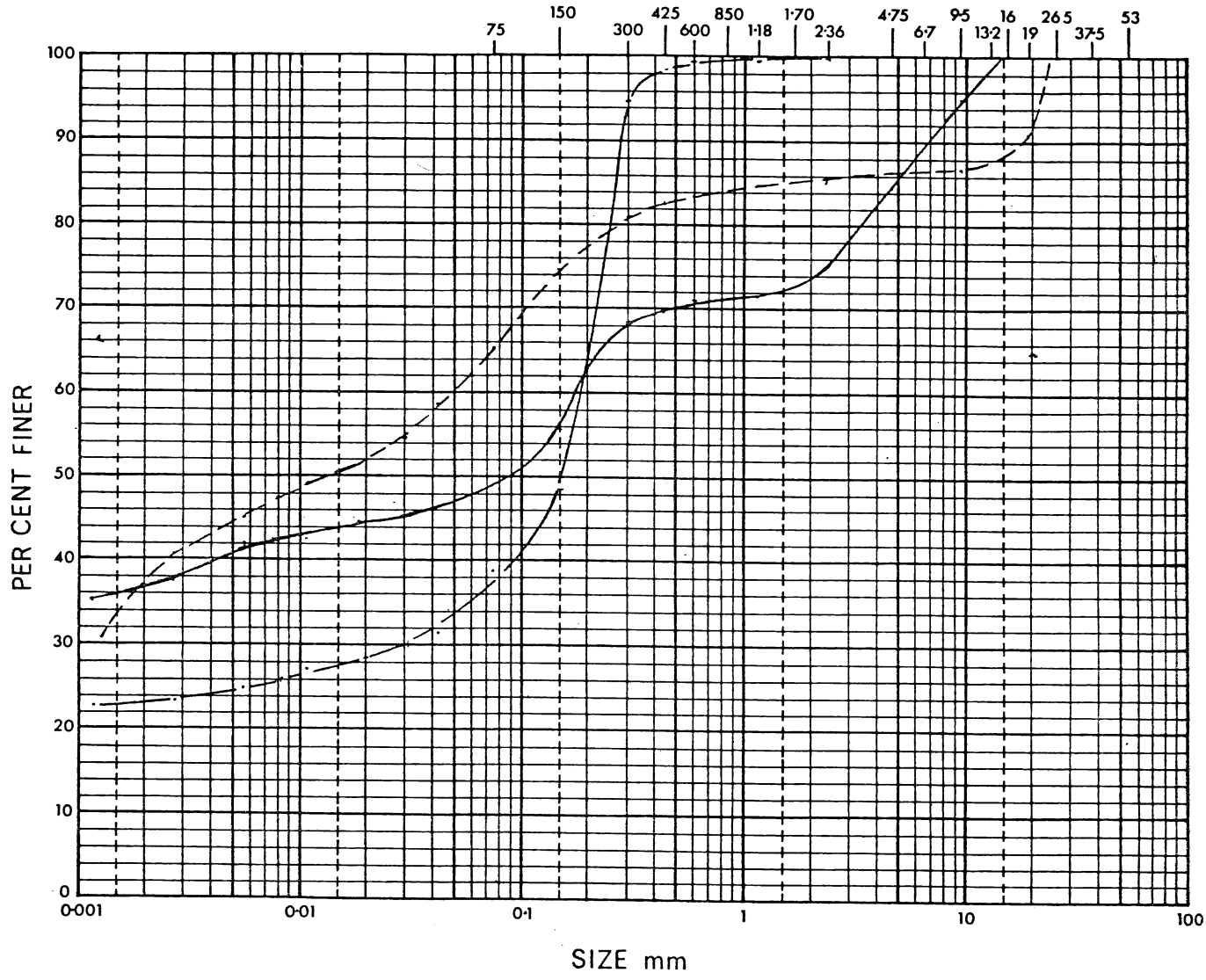
Soils Laboratory
MECHANICAL ANALYSIS

TRIAL HOLE G.S.3.

DEPTH

PROJECT NEAPTR. – MINES DEPT. DATE 16-8-79

LOCATION OPERATOR P.U.



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	GRAVEL
	SILT			SAND			

B.S.S. & M.I.T. Classifications

B.H.	Depth METRES	Description	Line	M.C. %	Lime Cont.	Hydrometer			Sand Fraction				
						Clay	Silt	Sand	-200	Fine	Med.	Coarse	Gravel
GS3 SOUTH	1·95–2·25		———			36	12	26	52	15	8	3	26
GS3 SOUTH	6·5–6·8		— — — —			37	25	24	65	15	7	2	14
GS3 NORTH	3·75–4·2		— · — · —			23	12	65	38	30	34	1	–
			— x — x										
			— △ — △										

B.10

EWS DEPARTMENT

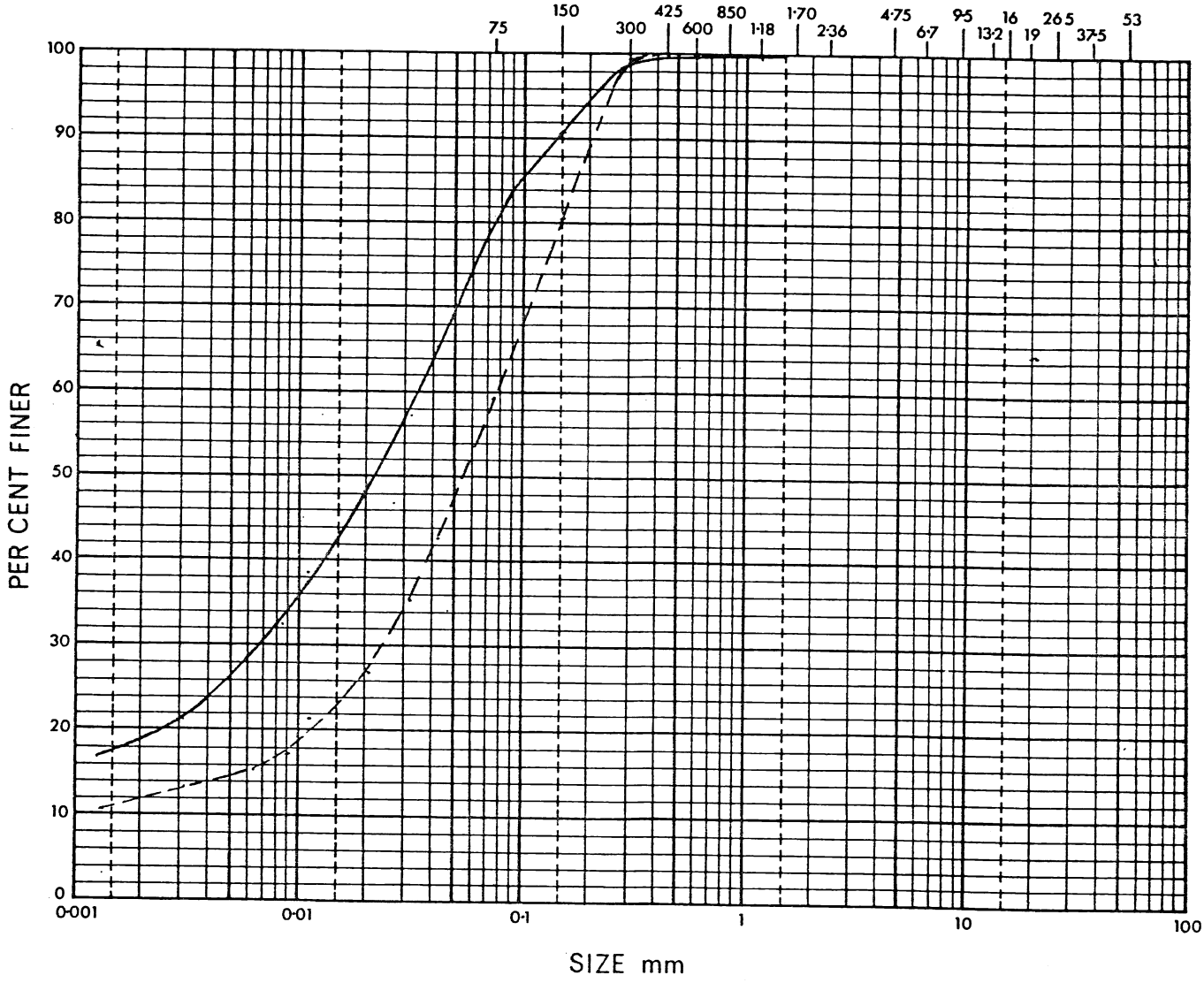
Soils Laboratory
MECHANICAL ANALYSIS

TRIAL HOLE B.6.

DEPTH

PROJECT NEAPTR. - MINES DEPT. DATE 16-8-79

LOCATION OPERATOR P.U.



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	GRAVEL
	SILT			SAND			

B.S.S. & M.I.T. Classifications

B.H.	Depth METRES	Description	Line	M.C. %	Lime Cont.	Hydrometer			Sand Fraction				
						Clay	Silt	Sand	-200	Fine	Med.	Coarse	Gravel
B6	3·45-3·9		———			19	56	25	81	19	6	-	-
B6	7·35-7·8		— — — —			12	41	47	59	36	11	-	-
			— · — · —										
			— x — x										
			— △ — △										

B·11

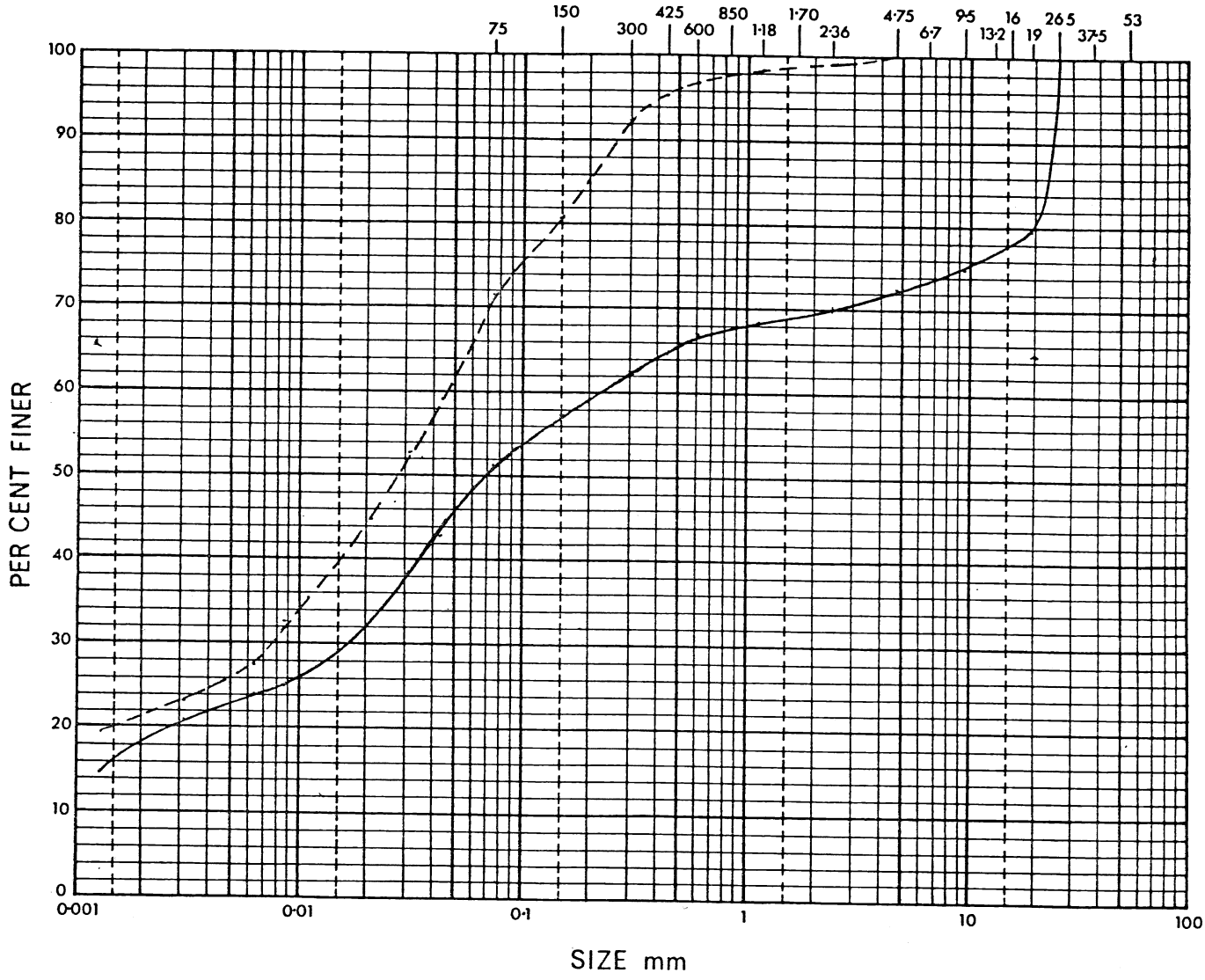
TRIAL HOLE
B1 & B4
DEPTH

EWS DEPARTMENT

Soils Laboratory
MECHANICAL ANALYSIS

PROJECT MINES DEPT. — NEAPTR. DATE 7-9-79

LOCATION OPERATOR P.U.



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	GRAVEL
	SILT			SAND			

B.S.S. & M.I.T. Classifications

B.H.	Depth	Description	Line	M.C. %	Lime Cont.	Hydrometer			Sand Fraction				
						Clay	Silt	Sand	-200	Fine	Med.	Coarse	Gravel
B4E	20·05-20·50		———			18	30	22	51	11	8	3	30
B1E	90-93		— — —			21	45	33	72	19	12	2	1
			— · — ·										
			— x — x										
			— △ — △										

B.12

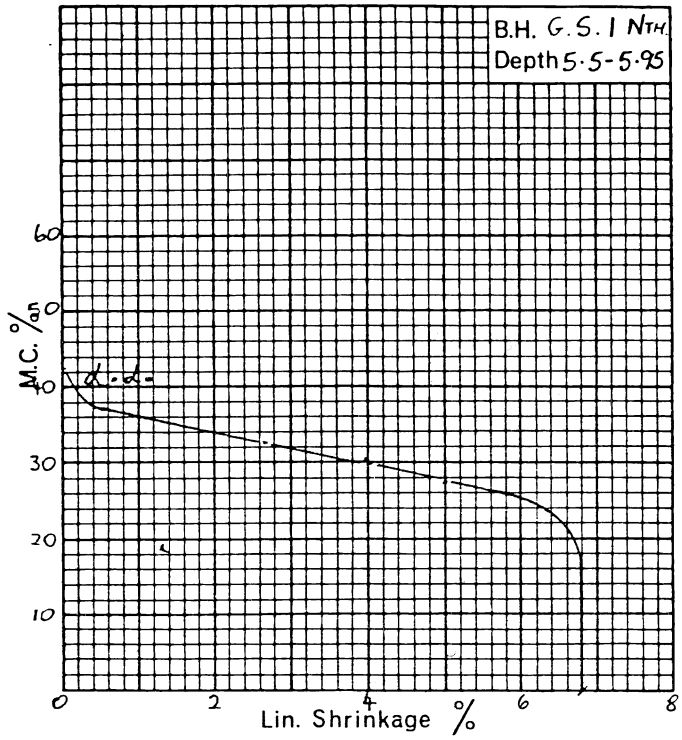
EWS DEPARTMENT

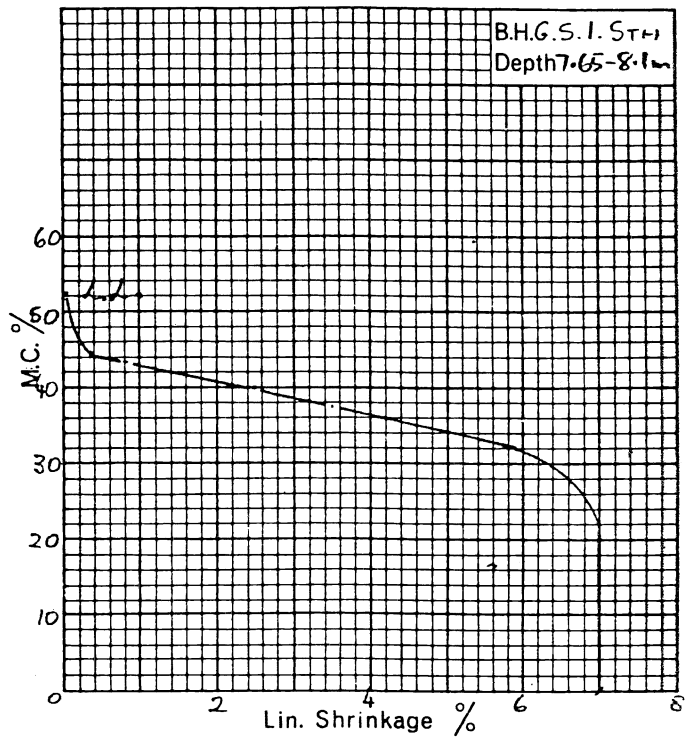
Soils Laboratory
LINEAR SHRINKAGE RESULTS

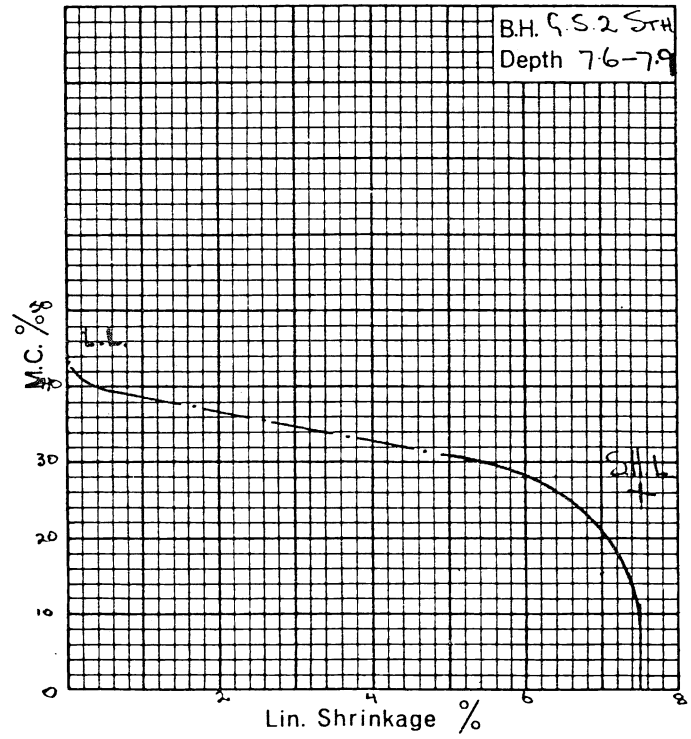
MINES DEPT. –

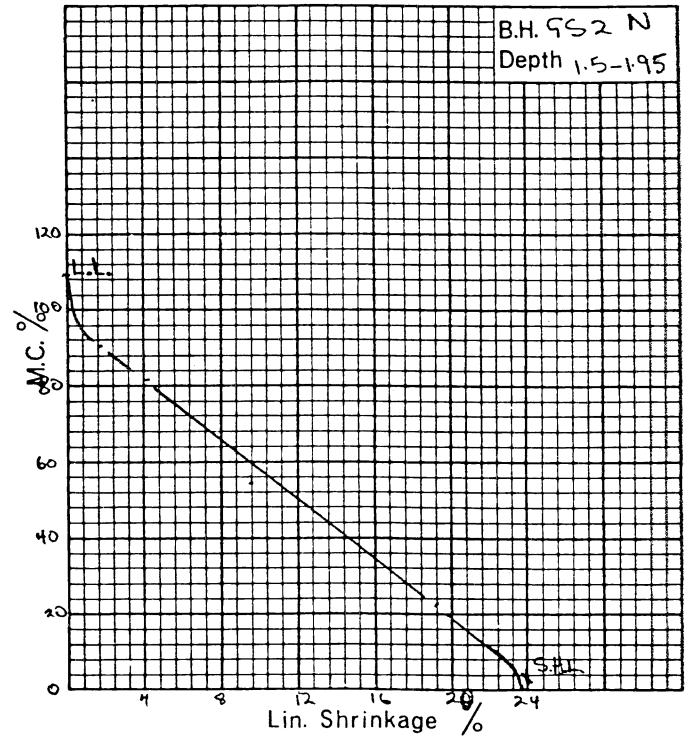
PROJECT NEAPTR.

LOCATION









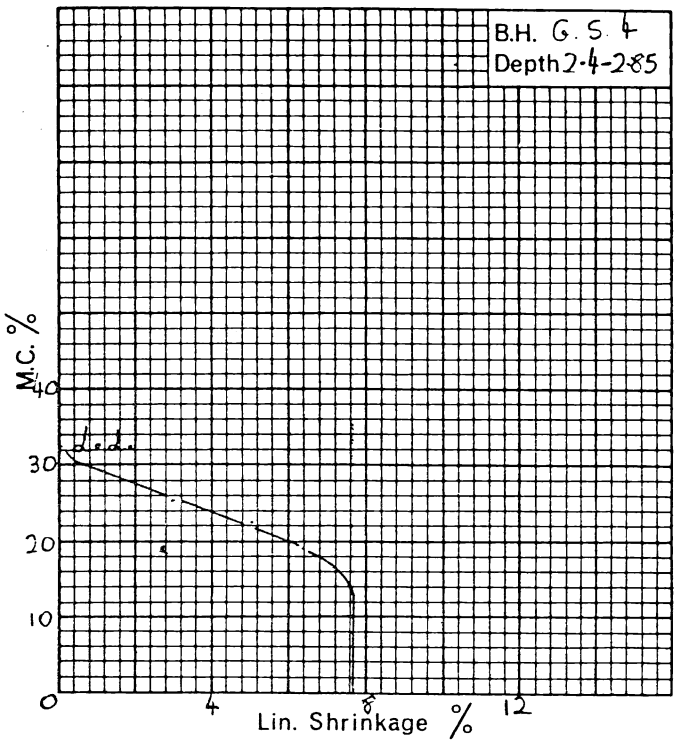
B.13

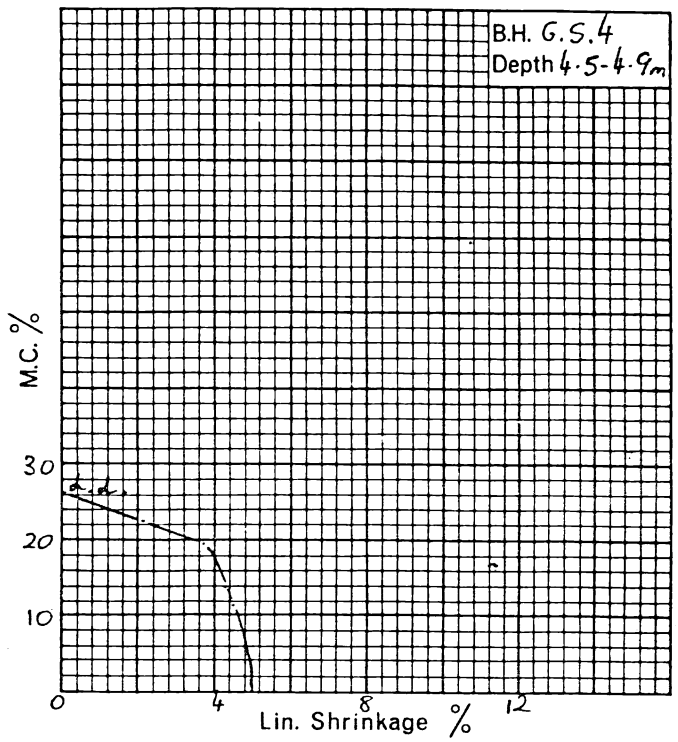
EWS DEPARTMENT

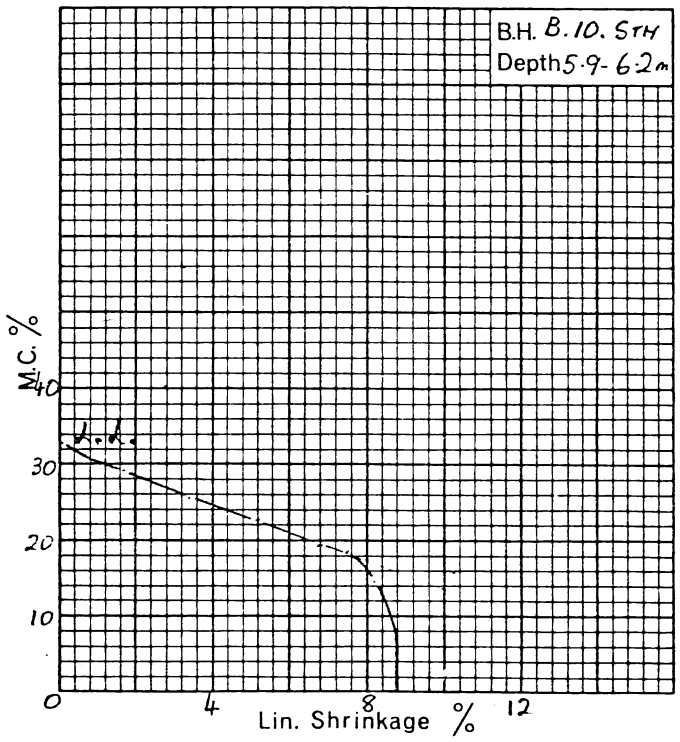
Soils Laboratory
LINEAR SHRINKAGE RESULTS

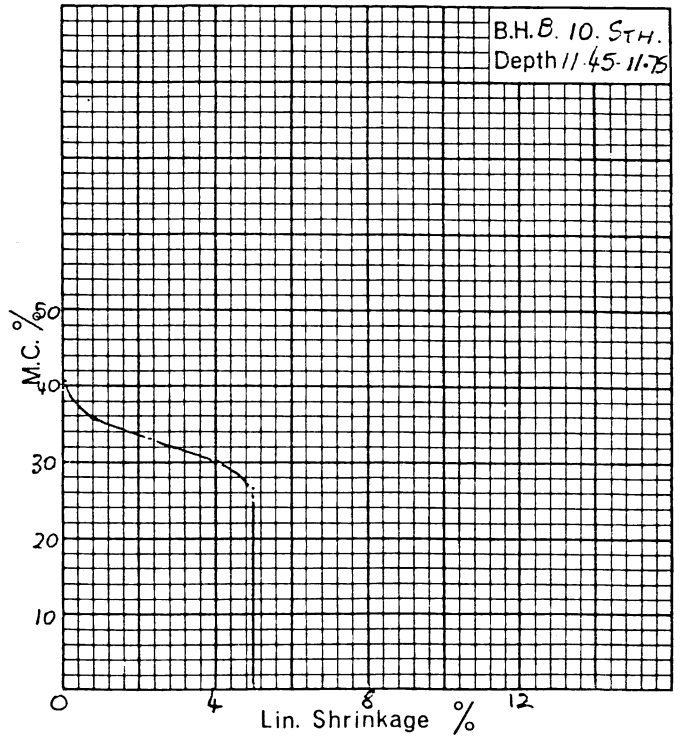
MINES DEPT. —
PROJECT NEAPTR.

LOCATION









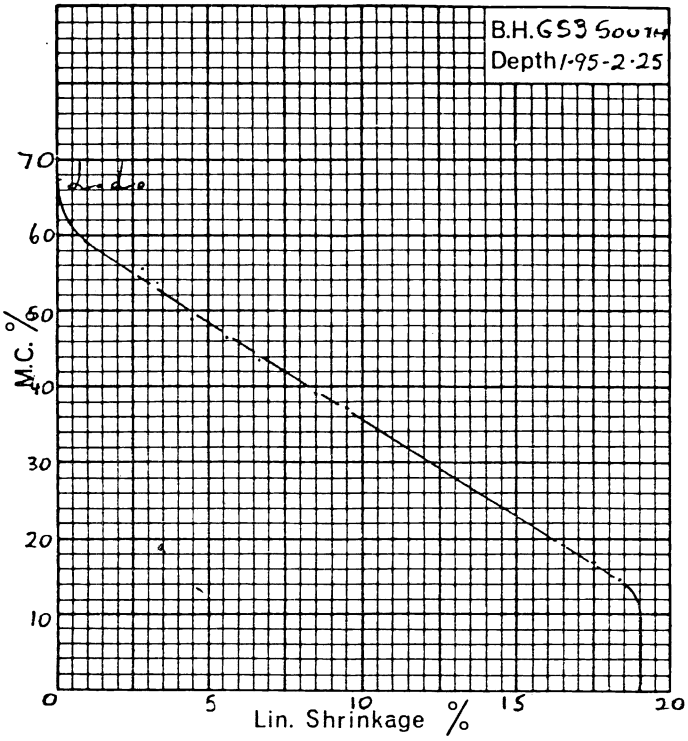
B.14

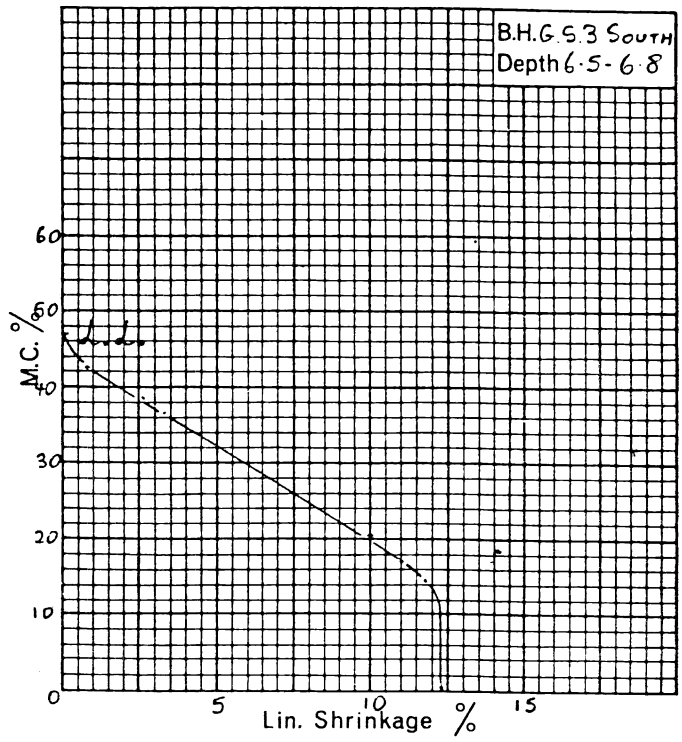
EWS DEPARTMENT

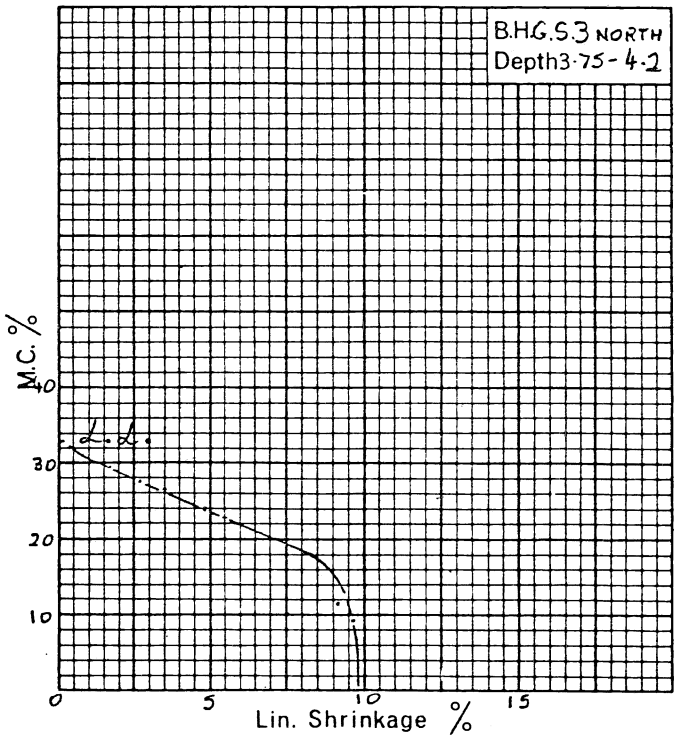
Soils Laboratory
LINEAR SHRINKAGE RESULTS

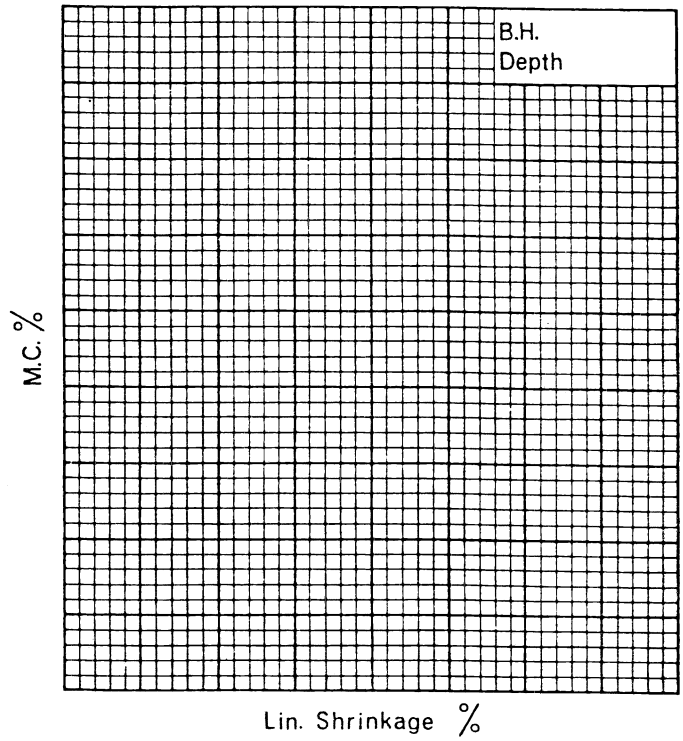
PROJECT: NEAPTR - MINES DEPT.

LOCATION: G.S.3









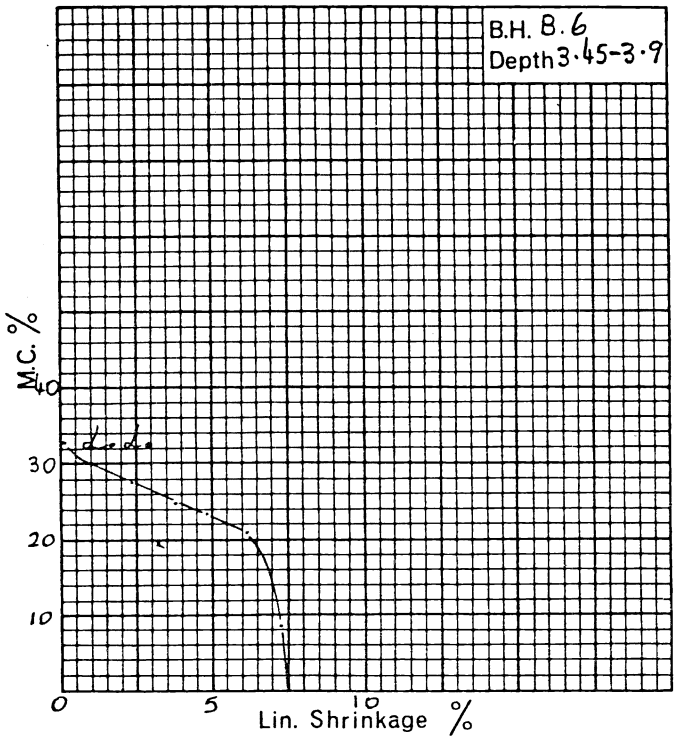
B.15

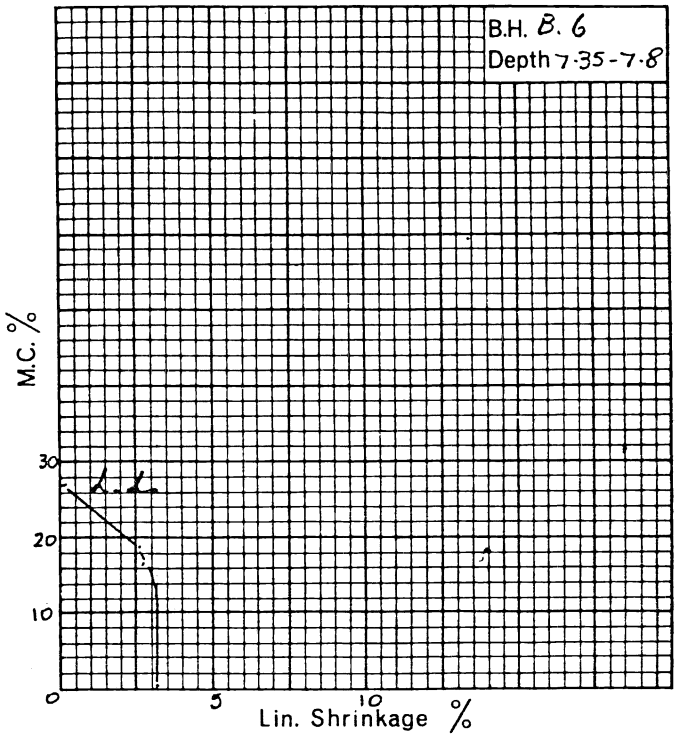
EWS DEPARTMENT

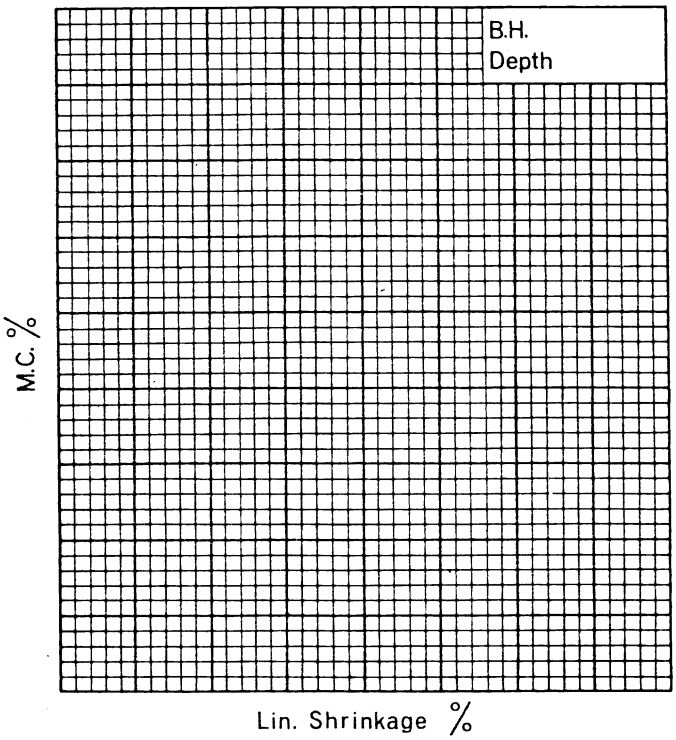
Soils Laboratory
LINEAR SHRINKAGE RESULTS

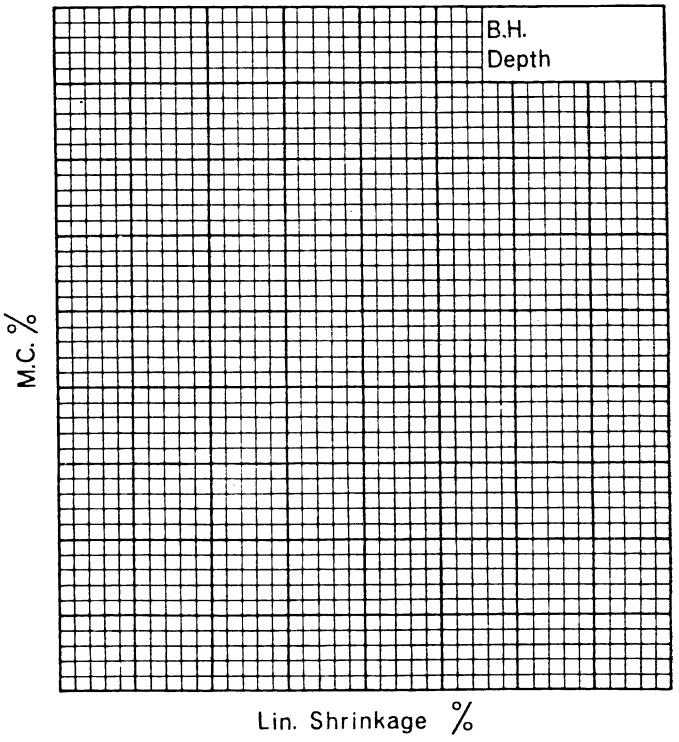
PROJECT: NEAPTR - MINES DEPT

LOCATION: B. 6.









B.16

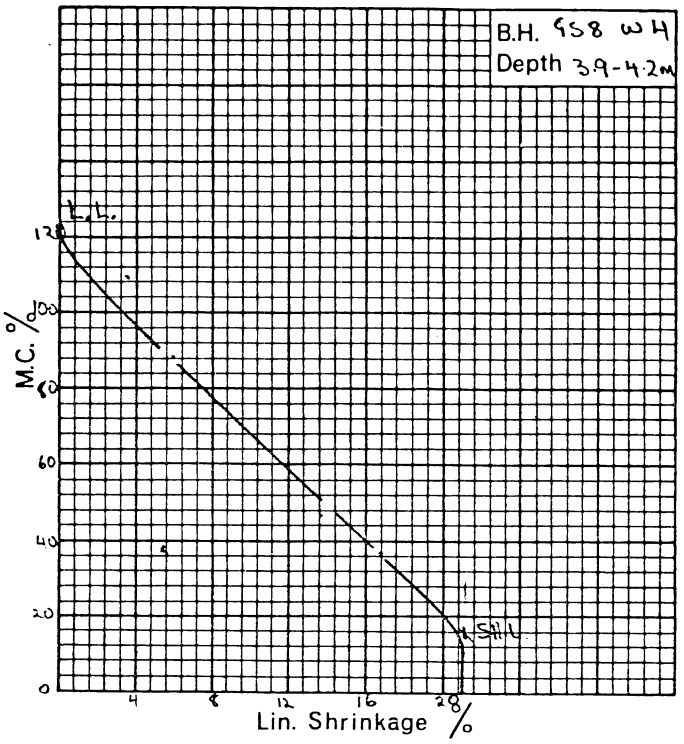
EWS DEPARTMENT

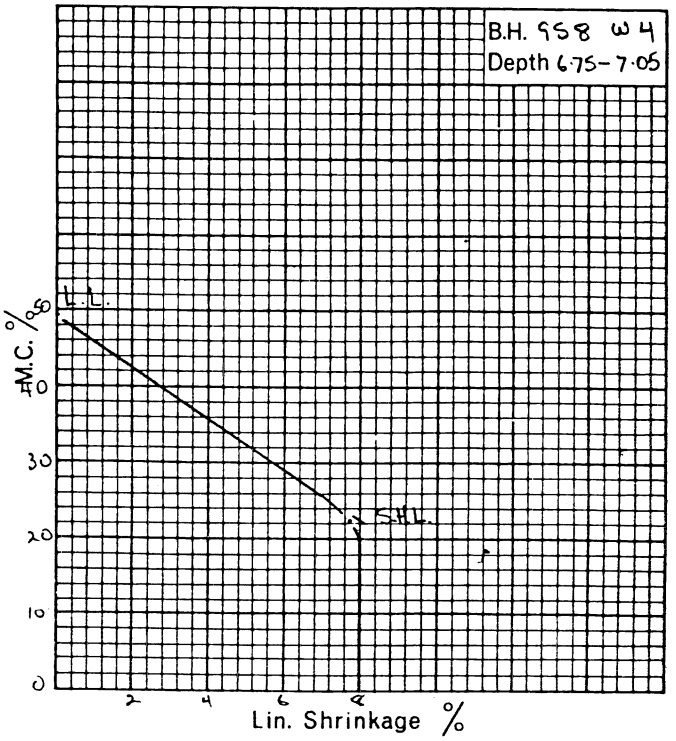
Soils Laboratory
LINEAR SHRINKAGE RESULTS

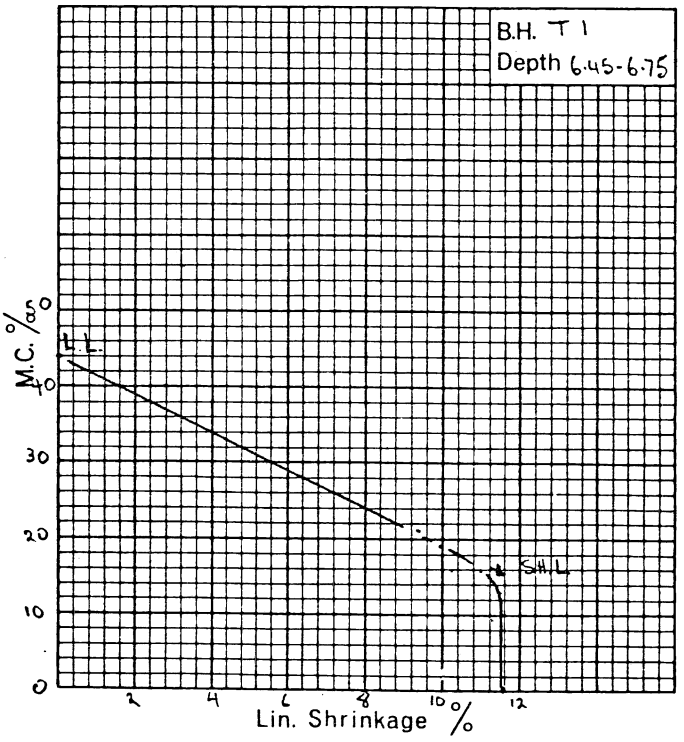
MINES DEPT. –

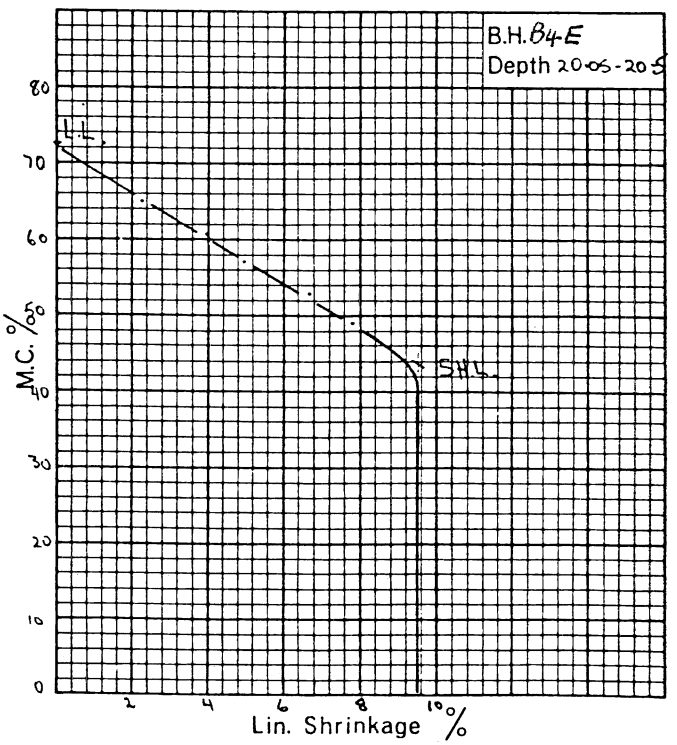
PROJECT NEAPTR.

LOCATION









B.17

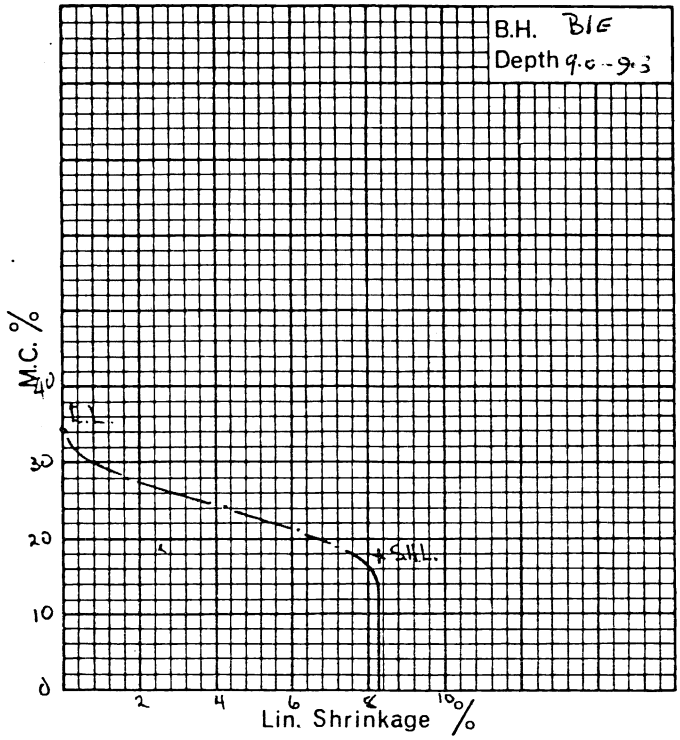
EWS DEPARTMENT

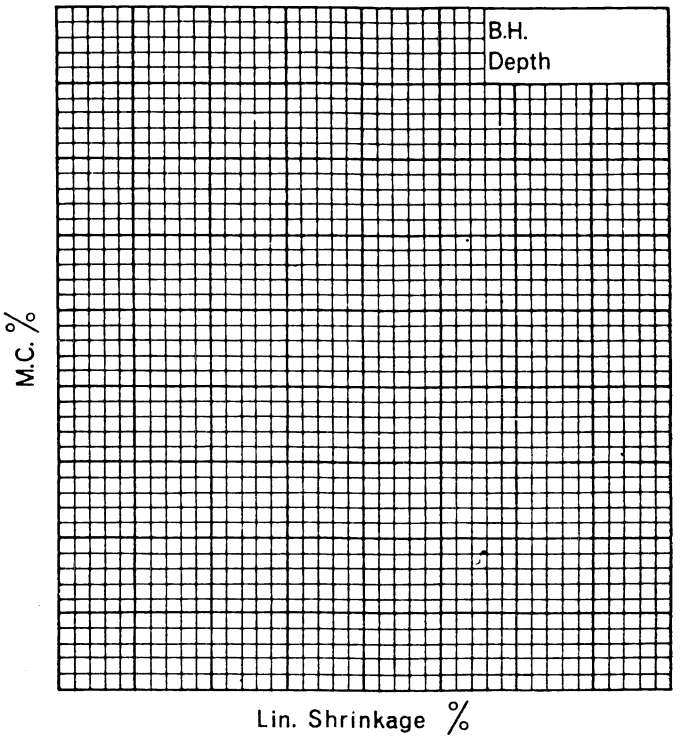
Soils Laboratory
LINEAR SHRINKAGE RESULTS

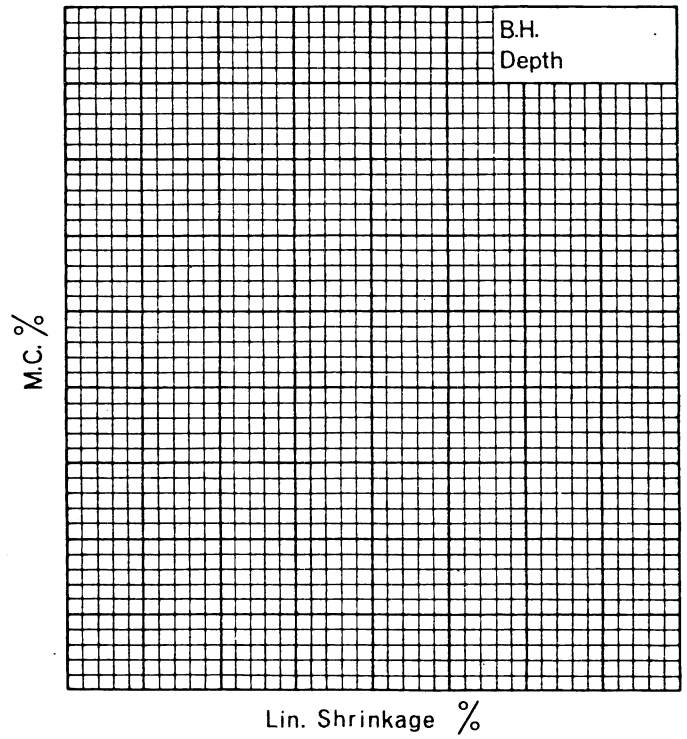
MINES DEPT. —

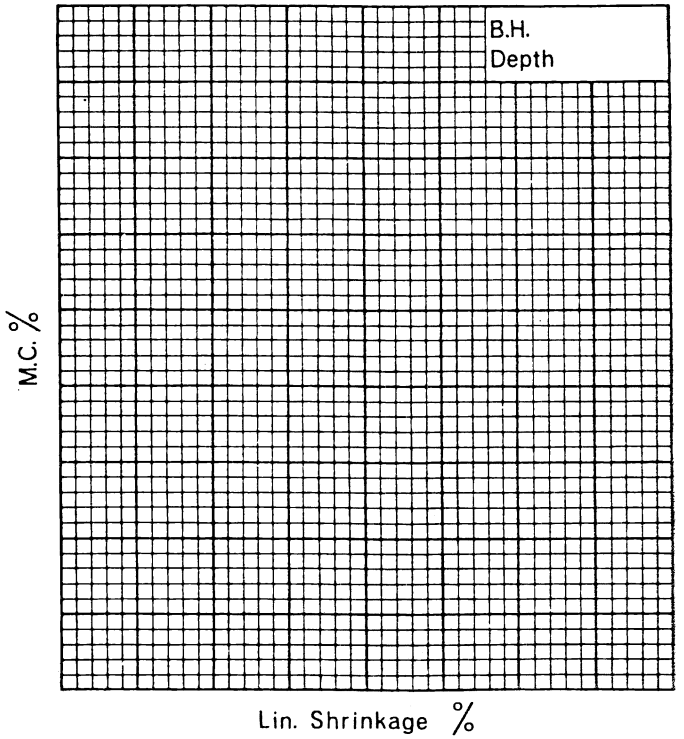
PROJECT NEAPTR.

LOCATION









B.18

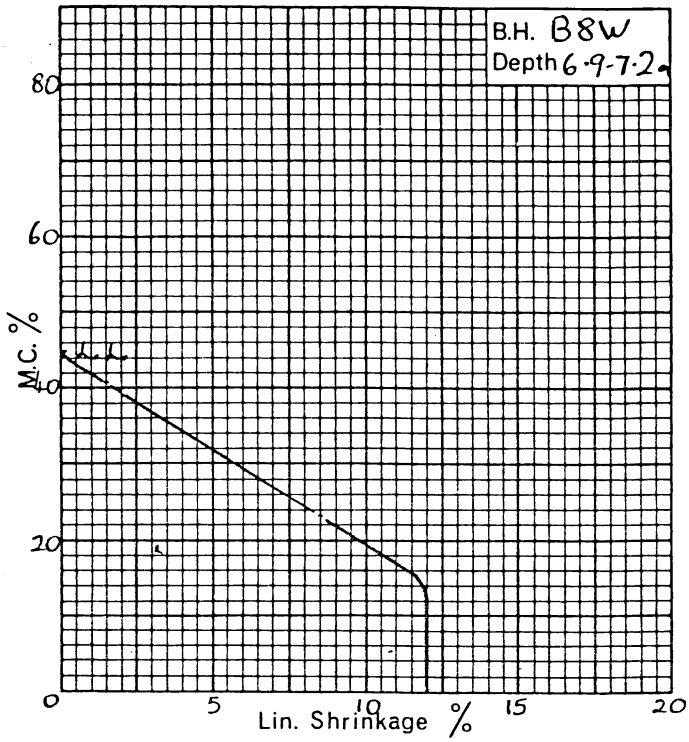
EWS DEPARTMENT

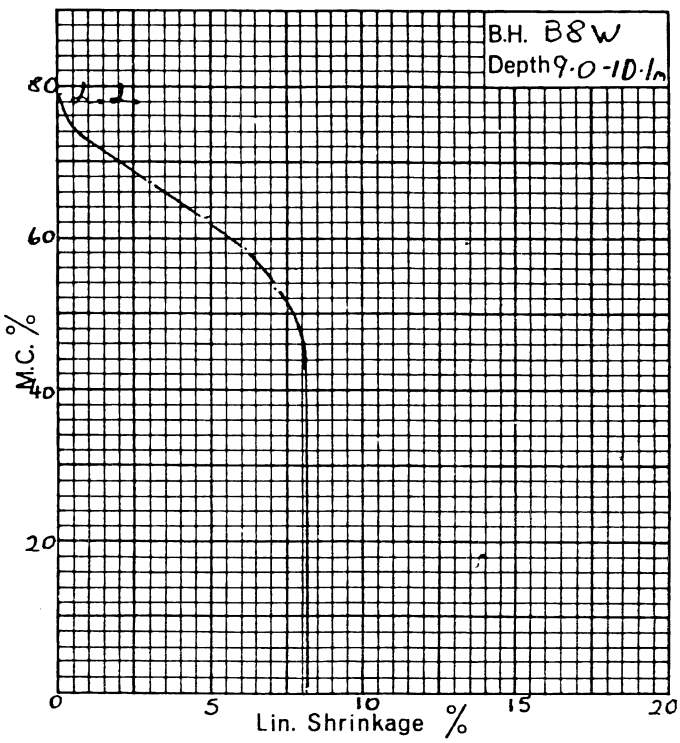
Soils Laboratory
LINEAR SHRINKAGE RESULTS

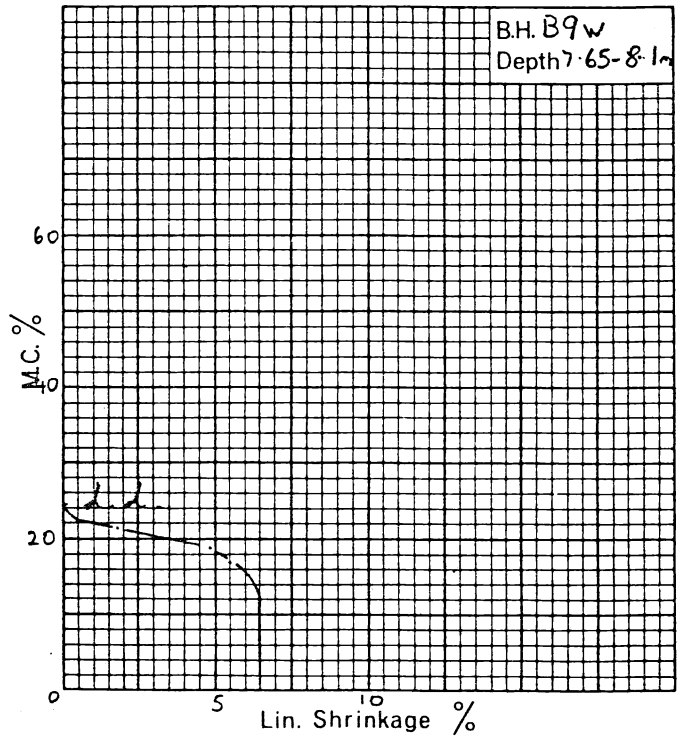
MINES DEPT. –

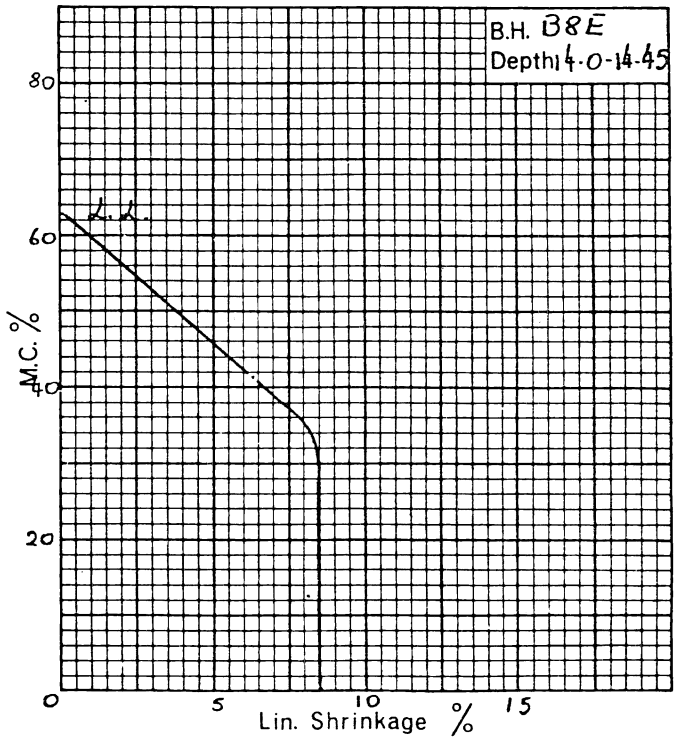
PROJECT NEAPTR.

LOCATION









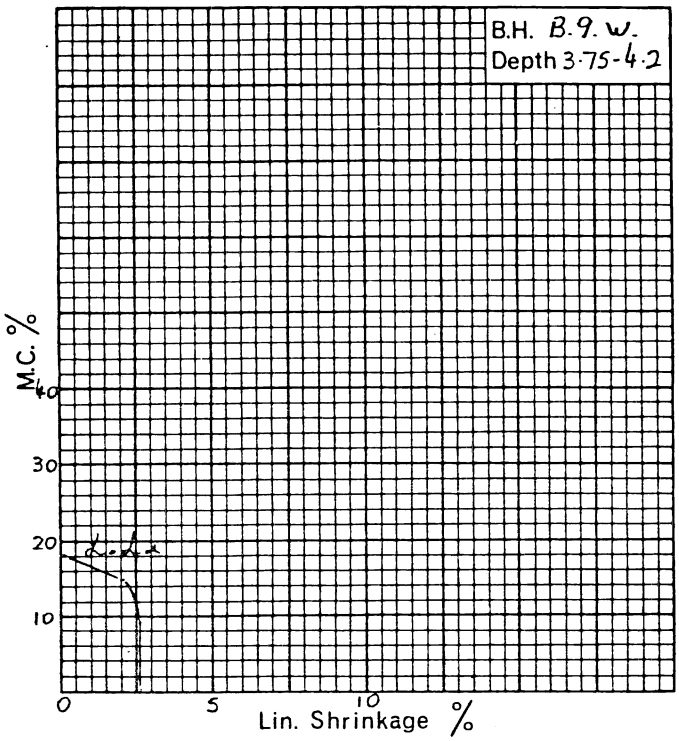
B.19.

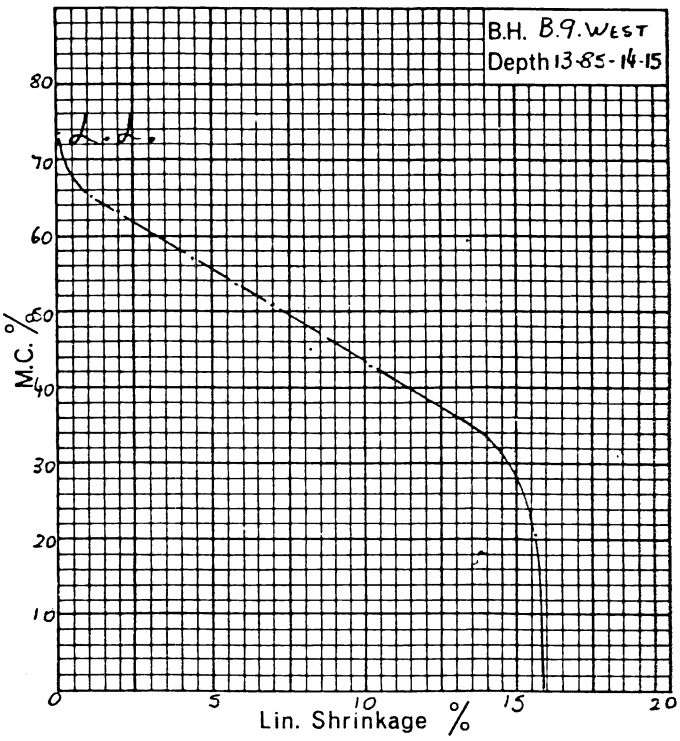
EWS DEPARTMENT

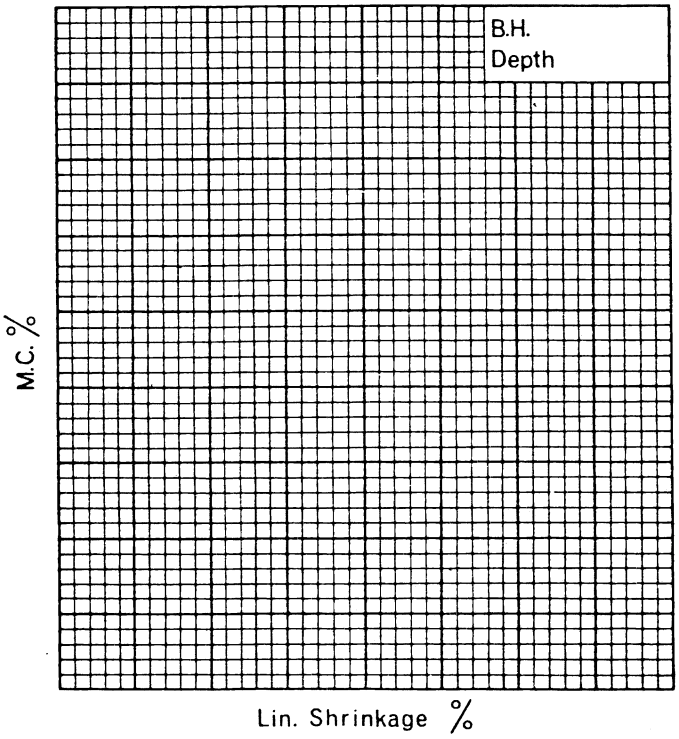
Soils Laboratory
LINEAR SHRINKAGE RESULTS

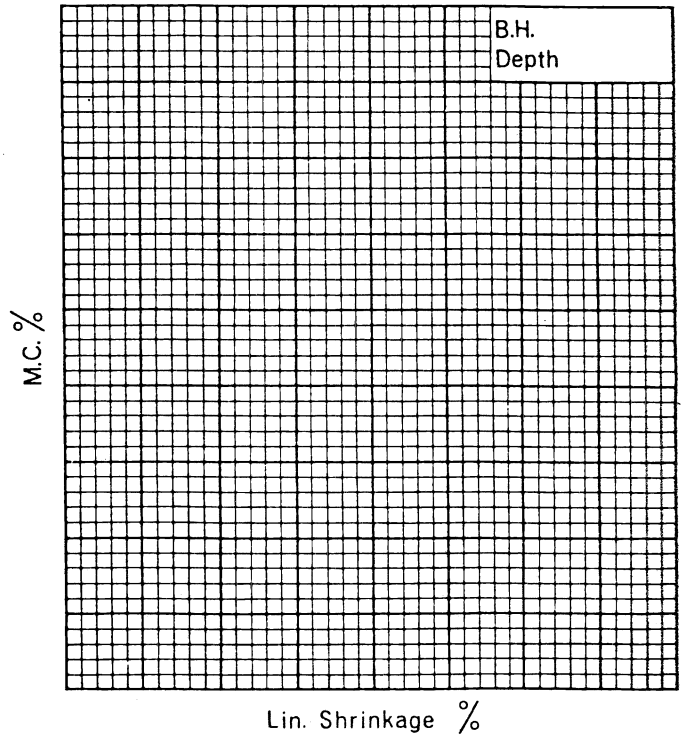
PROJECT NEAPTR - MINES. DEPT.

LOCATION B.9. WEST.









APPENDIX C

Foundation Hole Logs

(Note: Logs are arranged in alpha-numeric order of drillhole number)

For explanation of Group Symbols see
Unified Soil Classification System C61

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.

LOCATION OR CO-ORDS: GILBERT ST, GILBERTON

SEC. 258 HD. ADELAIDE

EL Surface 26.734m.

EL ref point Datum A.H.D.

HOLE NO. B1E

UNIT/STATE NO: 662842aEW1119

SERIAL NO: 301/80

FOLDER NO: 089066

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, USBR Earth Manual 2nd Edition 1966	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compct Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	SOIL TEST PENETROMETER Units * (1 2 3)
QUATERNARY – RECENT ALLUVIUM. River gravels, sands with interbedded clays. Dominantly well rounded to sub-rounded quartz and rock fragments, the latter to 8cm.		1		GC	GRAVEL – sandy, clayey. Large well rounded quartz pebbles (to 8cm.) in an orange – grey mottled sandy clay.			H	F	8	
										5	1.3
				SW	SAND – gravelly, clayey (Cl). Pale grey sand – quartz 0.1 – 0.5mm generally 0.2mm. Silt : sand ~ 1:1.	W.L. ▼ (16·8·79)		H	V.L	5	
									L	8	1
				GW	0.6 – 0.9m. medium brown, layering, black clay nodules.			D	MD	16	
		2			GRAVEL – sandy. Brown – minor clay but variable. Near top rock fragments (quartzite) to 80mm. Generally rounded to sub-rounded quartz commonly 1-2mm. with larger quartz and rock fragments. Minor opaques.			W	MD	16, 9, 5 (30)	
									↓ D	20	
		3						S		DRILLING	
		4									
										C	34 (19, 7, 8)
		5								DRILLING	
										18 (8, 5, 5)	1
				C1	CLAY – sandy, grey-blue and orange mottled. Plastic.				F	C	1
		6			SAND – relatively even grained, 0.5 – 0.8 mm. rounded – sub-rounded, clear, yellow stained				↓ S ↓ St	31	
				SW							
					GRAVEL – sandy, clayey. Blue-grey. Quartz sand size to pebbles (2-3cm. rounded) in a blue-grey clay matrix (variable %)				L	7, 8, 12 (27)	
		7		GC	7-8m. finer grained, rock fragments.				S ↓ F	40	
										DRILLING	
		8			8-9m. very sandy plus sandstone fragments.				D	75 (23, 31, 15)	
										C	
		9								DRILL	
BLANCHE POINT MARLS. Pale brown when weathered passing down to dark grey to black. Glauconitic. Shelly				C1	CLAY – plastic, pale brown, sandy plus odd large quartz. Glauconitic. Strongly silicified 10·15 – 10·25 grey, shelly.			W	S	16	
										11	0.4
										8	0.5

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level 7 Dec. '66 Casing; Water level (date); WC ▶ Water Cut	H Humid; D Damp; M Moist; W Wet; S Saturated; LL Liquid Limit; PL Plastic Limit	VS Very Soft; S Soft; F Firm; St Stiff; V St Very Stiff; H Hard	Ls Loose; MC Moderately Compact; C Compact; VC Very Compact	VL Very Loose; L Loose; MD Medium Dense; D Dense; VD Very Dense	OPEN TUBE: A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TEST (1 2 3 4); Total blows for 0.3m (or 0.1m increments)

50mm Diameter CONE TEST eg 10 3 4 3

* Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only

DRILL TYPE C. TOOL	LOGGED BY M. COBB
CIRCULATION	DATE ON SITE
START 16·8·79	TRACED BY D.W.W.
FINISH 17·8·79	DATE 26/11/79
SHEET 1 OF 2	

1643

MF58

DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS GILBERT ST., GILBERTON

SEC. 258 HD ADELAIDE

EL Surface 26.734 m. EL ref point Datum A.H.D.

HOLE NO. B / E
UNIT/STATE NO 6628420EW11119
SERIAL NO 301/80
FOLDER NO 089066

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, USBR Earth Manual 2nd Edition 1966	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compct Denssy	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 4)
strongly silicified in part.		11		CI	Strongly silicified 10.45 -10.55 m. Dark grey, glauconitic, sandy shelly.			St H St F		29,31,18(78) 41	
		12			CLAYSTONE - dark grey to black, shelly, calcareous -shells, echinoid spines etc.				H	DRILLING STP ≥ 4.5 18,37,55	
END OF HOLE 12.85m							Length slotted				

Note:
1. S.T.P. 10.05 - 10.35 abandoned after 18 blows last 10cm due to bouncing.
2. Tube blows 10.35 - 10.55 using reaming shoe (20cm penetration).
3. S.T.P. 12.65 - 12.85 abandoned after 20cm penetration.
4. Water level on 17/8/79 before drilling 2.55m below ground level. Casing on bottom ~ 6.3m.

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date) 7 Dec '66 Casing; WC Water Cut	H Humid; D Damp; M Moist; W Wet; S Saturated; LL Liquid Limit; PL Plastic Limit	VS Very Soft; S Soft; F Firm; St Stiff; VSt Very Stiff; H Hard	LS Loose; MC Moderately Compact; C Compact; VC Very Compact	VL Very Loose; L Loose; MD Medium Dense; D Dense; VD Very Dense	OPEN TUBE A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TEST; Total blows for 0.3m with 0.1m increments

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE C. TOOL	LOGGED BY M. COBB
CIRCULATION	DATE ON SITE
START 16.8.79	TRACED BY D.W.W.
FINISH 17.8.79	DATE 26/11/79

SHEET 2 OF 2

1643

MF 58

C-3

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA

ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: **NORTHEAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.**

LOCATION OR CO-ORDS: GILBERT ST., GILBERTON

SEC. 475 HD. YATALA

EL Surface 33.463m.

EL ref point

Datum A.H.D.

HOLE NO. 81 W

UNIT/STATE NO 662842aEW11118

SERIAL NO: 301/80

FOLDER NO 089065

GEOLOGICAL DESCRIPTION OF CORE	DEPTH m	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	MOISTURE CONTENT	Consistency Compct Densy	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	SOIL TEST PENETROMETER Units * (1 2 3 4)
FILL. Various fragments of brick, concrete, porcelain, burnt wood and weathered rock (siltstones) in a medium to dark brown clayey sand, gravelly sand or sandy silt.		SW	0-0.45m. GRAVEL/SAND/SILT: buff dominantly quartz (rubble)			5	
						3	
			0.45-1.95m. SAND: gravelly, clayey in part. Quartz sand, average grain size 0.5mm.			8	
	1					7	
						9	
			1.95-4.2m. Dominantly brick and concrete fragments with a medium brown clayey sand matrix.			4,5,5(14)	
	2					10	
						14	
						10	
	3					20	
						56	
						6,5,7(18)	
	4					26	
		ML	4.2-4.5m. SILT: clayey, sandy. Mottled grey-black.			8	
		SM/SC	4.5-4.8m. SAND: clayey silty with brick etc. fragments.			5	
	5					8	matrix 2-2.7
			4.8-6.07m. SAND: clayey, gravelly plus rock etc. fragments (to 3-4cm.)			12	
			6.07-6.15m. CLAY: sandy, red-brown.			3,4,4(11)	
	6	CI	6.15-7.35m. SAND: clayey, plus rock, brick etc. fragments.			8	2.5
						14	
		SC/SM	7.35-7.8m. SAND: fine grained, silty, slightly clayey. Medium-dark brown, average grain size 0.1-0.2m. Approx. 25% silt.			14	
	7					9	2.5
						8	
SAND & GRAVEL, THIN CLAY BANDS. Brown to grey. Quaternary, river sediments.		SM/SC	7.8-8.7m. CLAY: silty, sandy, micaceous. Thin sand, gravel seams, sand 20-30% below 8.4m.	M	MD	1,1,1(3)	
	8	CI	8.7-8.85m. SAND: silty, clayey. Pale brown sand=silt ~ 1:1.		St	14	
		SC/CI	8.85-9m. CLAY: Grey, sandy, silty. W.L. ▼		F	11	
				M	S	7	2.2-2.5
		SM	9-9.3m. GRAVEL: (14-8-79) Yellowish-brown, clayey.	S	S	12	1.5-1.7
9-9.3m. Dominantly quartz, silt size to 5mm, ang. & well-rounded, clear, off-white, yellow stained. About 1-2% opaques (0.2-0.5mm. Equal proptns. sand silt.	9	SC/CI, GM	9.3-9.6m. SAND: silty, clayey. Quartz silt size to 4mm, average 0.2-0.5mm.		?	20	1.5
		SM/SC			L	3,3,4(10)	0.5-1.1
		CI	9.6-9.75m. CLAY: silty, grey.		S	20	
	10		No Sample - assumed gravel.				

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
7 Dec '66 / Casing	H Humid	VS Very Soft	Ls Loose	VL Very Loose	OPEN TUBE: A Shoe; D Shoe
Water level (date)	D Damp	S Soft	MC Moderately Compact	L Loose	SEALED TUBE WITH NUMBER [A 1 2 3 4 5]
WC ▶ Water Cut	M Moist	F Firm	C Compact	MD Medium Dense	STANDARD PENETRATION TESTS 1 2 3 4 Total blows for 0.3m (in 0.1m increments)
	W Wet	St Stiff	VC Very Compact	D Dense	
	S Saturated	VSt Very Stiff		VD Very Dense	
	LL Liquid Limit	H Hard			
	PL Plastic Limit				

C 50mm Diameter CONE TEST eg. 10:3:43

✱ Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only

DRILL TYPE C. TOOL	LOGGED BY M. COBB
CIRCULATION	DATE ON SITE
START 13.8.79	TRACED BY D.W.W.
FINISH 15.8.79	DATE 26/11/79
SHEET 1 OF 2	

1643

MF 58

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.

LOCATION OR CO-ORDS GILBERT ST. GILBERTON

SEC 475 HD YATALA

EL Surface 33.463m. EL ref point Datum A.H.D.

HOLE NO. 81 W
UNIT/STATE NO 662842aEW1111B
SERIAL NO 301/80
FOLDER NO 089065

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia / DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R Earth Manual 2nd Edition 1966	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compct Denssy	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 4)
	10		SM	SAND: clayey (Driller feels gravelly above 11m.) Olive green Quartz 0.3 - 0.5m., relatively even grained, angular to rounded. Opaque ≤ 1% plus odd glauconitic ? pellet. Quite micaceous. Near bottom sand : silt ~ 1: 2.						
	11									
	12		SC / GM	SAND: clayey. Blue-grey, passes down into gravel; silty with odd large (5cm) quartzite fragments.					4, 8, 10 (22)	
			GM	GRAVEL: slightly clayey. Quartz silt size to 20 mm. Well rounded to sub-angular. Rock fragments to 80mm., grey-green.						
	13		SW (SM)	Silt : sand ~ 1:1. SAND: gravelly. Quartz, silt size to 2mm. + gravel to 10mm., clear, white, angular - rounded. Minor opaques. Large well rounded quartzite pebbles. coarsening to base. Fines lost in drilling ?						
	14		GM	GRAVEL: sandy. As above but 50% ≥ 2mm. Well rounded quartz and siltstone fragments 30mm. Not making water (fines lost during drilling ?)						
	15									
BLANCHE POINT MARL. Olive yellow where weathered (15.5-17.5m)			CI / GC	CLAY: Gravelly. Olive-yellow (2.5Y 6/8					13, 32, 13 (58)	
	16		CI							
Completely weathered Bedrock.	17									
END OF HOLE 17.80 m.	18									

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date) 7 Dec 166 Casing; WC Water Cut	H Humid; D Damp; M Moist; W Wet; S Saturated; PL Plastic Limit	VS Very Soft; S Soft; F Firm; St Stiff; VSt Very Stiff; H Hard	L Loose; MC Moderately Compact; C Compact; VC Very Compact	VL Very Loose; L Loose; MD Medium Dense; D Dense; VD Very Dense	OPEN TUBE: A Shoe, D Shoe; SEALED TUBE WITH NUMBER; STANDARD PENETRATION TEST: Total blows for 0.3m (in 0.3m increments)

* Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only

DRILL TYPE C. TOOL	LOGGED BY M. COBB
CIRCULATION	DATE ON SITE
START 13.8.79	TRACED BY D.W.W.
FINISH 15.8.79	DATE 26/11/79

SHEET 2 OF 2

1643

MF 58

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT **NORTHEAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.**

LOCATION OR CO-ORDS: STEPHEN TERRACE, WALKERVILLE

SEC 475 HD YATALA

EL Surface 34.666m. EL ref point Datum A.H.D.

HOLE NO. B2E
UNIT/STATE NO 6628/12aEW/11120
SERIAL NO 301/80
FOLDER NO 089067

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL Casing	MOISTURE CONTENT	Consistency Compct Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (0 3 →)
FILL		1 2 3 4 5 6 7			FILL :- Brick, clay, rubble, sand					
					Rubble, glass, concrete.			D		
GRAVEL AND SILT		8 9			Dark brown alluvium.	W.L. ▼ (28/8/79)		S		

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date) 7 Dec '66 Casing; WC ▶ Water Cut	H – Humid; D – Damp; M – Moist; W – Wet; S – Saturated; Ll – Liquid Limit; Pl – Plastic Limit	VS – Very Soft; S – Soft; F – Firm; St – Stiff; V St – Very Stiff; H – Hard; C 50mm Diameter CONE TEST eg 10 3 4	Ls – Loose; MC – Moderately Compact; C – Compact; VC – Very Compact	VL – Very Loose; L – Loose; MD – Medium Dense; D – Dense; VD – Very Dense	OPEN TUBE: A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (S 1 2 3 4); Total blows for 0.3m (in 0.1m increments)

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY J.C.B.
CIRCULATION	DATE
START 24·8·79	TRACED BY E.C.
FINISH	DATE 19·10·79

SHEET 1 OF 2

1643

MF 58

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: STEPHEN TERRACE, WALKERVILLE

SEC. 475 HD YATALA

EL Surface 34.666 m. EL ref. point Datum A.H.D.

HOLE NO. B2E
UNIT/STATE NO 662842aEW11120
SERIAL NO: 301/80
FOLDER NO 089067

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL	MOISTURE CONTENT	Consistency Compct Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 4)
		11								
		12								
		13								
GRAVEL				GP	Orange - brown, clean angular gravel (< 5mm) < 5% silt-sand content.					
		14								
BLANCHE POINT MARL (CW)		15			Hard, dark green - black Blanche Pt. Marl					
		16								
					End of hole 60 blows for 2cm. in hard dark green Blanche Pt. Marl.				(4,3,4) 11	
End of Hole 17.72m.		17								
		18								
		19								

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date) 7 Dec. 66 Casing; WC Water Cut	H Humid; D Damp; M Moist; W Wet; S Saturated; LL Liquid Limit; PL Plastic Limit	VS Very Soft; S Soft; F Firm; St Stiff; V St Very Stiff; H Hard	Ls—Loose; MC—Moderately Compact; C Compact; VC Very Compact	VL Very Loose; L Loose; MD Medium Dense; D Dense; VD Very Dense	OPEN TUBE: A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (2 3 4); Total blows for 0.3m (or 0.1m increments)

50mm Diameter CONE TEST eg 10 x 4 5

* Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY J.C.B.
CIRCULATION	DATE
START	TRACED BY E.C.
FINISH	DATE 19·10·79
SHEET 2 OF 2	

1643

MF58

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: STEPHEN TERRACE, ST. PETERS

SEC. 280 HD. ADELAIDE

EL Surface 28.584m. EL ref point Datum A.H.D

HOLE NO. B3E
UNIT/STATE NO 662842aEW11123
SERIAL NO 301/80
FOLDER NO 089068

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, USBR Earth Manual 2nd Edition 1966	WATER LEVEL Casing	MOISTURE CONTENT Consistency Compct Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 –)
ORGANIC - SANDY TOPSOIL				OL / SM	Black – dark brown				
SAND		1		SP	Brown sand (medium) with minor silt content.				
		2							
GRAVEL. Brown, rounded quartz up to 15mm. maximum dimension.		3		GP	Gravel with minor sands.				
		4			4-5 m. Silty gravel (up to 5 cm) with fine-coarse sand. Some balls of light brown micaceous silt. Easy drilling.				
		5			5-6 m. As above				
		6			6-6.4 m. Coarse sandy, fine-coarse gravel. Small silt content. Hard drilling.				
		7			6.4-7 m. As above? Very hard drilling. Water cut off at 6.8 m. Sample pounded to powder. W.C. →				
		8			7.5-8.7 m CWB Light green and yellow brown black speckled silt. 7.75-7.8 m. Slightly harder and more brittle.		M	7B	2.6
							M	6B	1.6
					8.7-9.05 m. As above, but yellow brown and cream mottling.		M	7B	1.75
		9			9.05-9.4 m Cream, hard but brittle (can be broken with a light tap) and broken up with shell molds and casts.		M	26B	1.95
					9.4-9.6 m. As for 8.7-9.05 m.			60B	
END OF HOLE 10.15m					9.6 m. Fresh rock with shells.			60B	
								6.17.5/28	

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
7 Dec 66 Casing; Water level date; WC Water Cut	H Humid; D Damp; M Moist; W Wet; S Saturated; LL Liquid Limit; PL Plastic Limit	VS Very Soft; S Soft; F Firm; St Stiff; VSt Very Stiff; H Hard	Ls Loose; MC Moderately Compact; C Compact; VC Very Compact	VL Very Loose; L Loose; MD Medium Dense; D Dense; VD Very Dense	OPEN TUBE A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS; Total blows for 0.3m (in 0.1m increments)

50mm Diameter CONE TEST ec IL 14

* Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only.

DRILL TYPE	LOGGED BY B.E.
CIRCULATION	DATE
START	TRACED BY E.C.
FINISH	DATE 22/10/79

SHEET 1 OF 1

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MF 58

C-8

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: **NORTHEAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.**

LOCATION OR CO-ORDS: NAILSWORTH TCE., WALKERVILLE

SEC. 476 HD. YATALA

EL Surface 35.275

EL ref. point

Datum A.H.D.

HOLE NO. B3 (W)

UNIT/STATE NO. 6628420 EW11122

SERIAL NO. 301/80

FOLDER NO 089069

GEOLOGICAL DESCRIPTION OF CORE	DEPTH m	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME (Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966)	MOISTURE CONTENT	Consistency / Compact Density	FIELD TEST DATA: BLOWS PER 30 cm
SANDS	0–0.6	SM	SILTY FINE SAND – Slightly clayey, brown with plant roots and 5-10% pebbles.	D		
	0.6–2.35	SM	SILTY FINE SAND – Light brown and slightly micaceous.			3,4,3 (10)
	2.35–4.45	SP	FINE – MEDIUM SAND – Light brown to cream. Small silt and mica content.	H	MC	5,5,6 (16)
	4.45–7.35	SP	GRAVELLY MEDIUM COARSE SAND Cream and micaceous, 2-5%, subrounded quartz gravel. Below 6.75 m – 10% gravel up to 5 cm.	D		
SAND AND SILT	7.35–7.55	CL	(ML) SILTY CLAY – Mottled gr.-br. Micaceous		VS	
	7.55–8.75	SP	GRAVELLY COARSE SAND. Rust coloured subrounded coarse sand, 5-10% quartz gravel up to 8 cm. Thin layers of a mottled grey and brown micaceous very soft silt. W.C. ▼	M	MC	6,4,3 (13)
GRAVELS AND SAND	8.75–10	SM (GP)	GRAVELLY SAND. – A gravelly (30-50%) and silty medium coarse sand. Rust coloured. Gravel up to 4 cm.	S		

FIELD TEST DATA column headings: BLOWS PER 30 cm (4 8 16 32 64); SOIL TEST PENETROMETER Units * (1 2 3 –)

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
7 Dec 66; Casing	H Humid	VS Very Soft	Ls Loose	VL Very Loose	OPEN TUBE: A Shoe; D Shoe
Water level (date)	D Damp	S Soft	MC – Moderately Compact	L Loose	SEALED TUBE WITH NUMBER: A 1 2 3 4 5
WC ▶ Water Cut	M Moist	F Firm	C Compact	MD Medium Dense	STANDARD PENETRATION TESTS: 9 2 3 4 – Total blows for 0.3m in 0.1m increments
	W Wet	St Stiff	VC Very Compact	D Dense	
	S Saturated	VSt Very Stiff		VD Very Dense	
	LL Liquid Limit	H Hard			
	PL Plastic Limit				

C 50mm Diameter CONE TEST eg 10 3 4 3

* Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only

DRILL TYPE		LOGGED BY	B.E.
CIRCULATION		DATE	
START		TRACED BY	D.W.W.
FINISH		DATE	26/11/79

SHEET 1 OF 2

1643

MF 58

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: **NORTHEAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.**

LOCATION OR CO-ORDS: NAILSWORTH TCE., WALKERVILLE

SEC 476 HD YATALA

EL Surface 35.275m.

EL ref. point

Datum A.H.D.

HOLE NO. B3 (W)

UNIT/STATE NO 6628420EW11122

SERIAL NO 301/80

FOLDER NO. 089069

GEOLOGICAL DESCRIPTION OF CORE	DEPTH m	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME (Unified Soil Classification, USBR Earth Manual 2nd Edition 1966)	MOISTURE CONTENT	Consistency Compct Densy
GRAVELS	10–11.5	GP/SM	SANDY GRAVEL :- A fine-medium sandy fine to coarse gravel		
	11.5–13.15	GM/ML	GRAVEL & SILT :- Fine-coarse quartz gravel and a grey and brown mottled micaceous silt. 20-30%? fine-medium sand content.		
	13.15–13.85	GM/ML	SILTY GRAVEL :- As above, but much less silty.		
	13.85–16.3		GRAVEL.		
	16.3–17.23	CW	COMPLETELY WEATHERED BEDROCK :- Pale grey green.	S	VS
				S	VS
END OF HOLE 17.23m			Completed in CW/MW BLANCHE PT. MARL.		

FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64); SOIL TEST PENETROMETER Units * (1 2 3 –)

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
7 Dec. '66 / Casing	H – Humid	VS – Very Soft	Ls – Loose	VL – Very Loose	OPEN TUBE: A Shoe, D Shoe
Water level date	D – Damp	S – Soft	MC – Moderately Compact	L – Loose	SEALED TUBE WITH NUMBER
WC ▶ Water Cut	M – Moist	F – Firm	C – Compact	MD – Medium Dense	STANDARD PENETRATION TESTS
	W – Wet	St – Stiff	VC – Very Compact	D – Dense	Total blows for 0.3m or 0.1m increments
	S – Saturated	VSt – Very Stiff		VD – Very Dense	
	LL – Liquid Limit	H – Hard			
	PL – Plastic Limit				

50mm Diameter CONE TEST eg 10343

* Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only.

DRILL TYPE		LOGGED BY	B.E.
CIRCULATION		DATE	
START		TRACED BY	D.W.W.
FINISH		DATE	26.11.79

SHEET 2 OF 2

1643

MF 58

C-10

PROJECT **NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.**

LOCATION OR CO-ORDS: KOOLAMAN ST., JOSLIN

SEC. 281 HD. ADELAIDE

DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA

ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

EL Surface 37.243 m.

EL ref point

Datum A.H.D.

HOLE NO. 84 W

UNIT/STATE NO 6628390EW11124

SERIAL NO: 301/80

FOLDER NO. 089071

GEOLOGICAL DESCRIPTION OF CORE	DEPTH m	GROUP SYMBOL	MOISTURE CONTENT	Consistency Compct Densy	FIELD TEST DATA: BLOWS PER 30 cm	SOIL TEST PENETROMETER Units *
SANDS	0	SP	H	MD		
		SP		D		>4.5
	1			VD		
				D		
	2				4.3.4 (11)	
				MD		>4.5
	3					
	4	SM/ML	D		4.4.5 (13)	
	5			LS		
CLAYEY SILT AND SILT	6				4.3.3 (10)	
				S		
SAND	7		M	Ls		
	8			MD	3.5.5 (13)	
	9					
	10		S		3.2.2 (7)	

W.L. (8.8.79)

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
7 Dec. '66 Casing	H Humid	VS Very Soft	Ls — Loose	VL Very Loose	OPEN TUBE .... A Shoe
Water level / date	D Damp	S Soft	MC — Moderately Compact	L Loose	.... D Shoe
WC ▶ Water Cut	M Moist	F Firm	C Compact	MD Medium Dense	SEALED TUBE WITH NUMBER 1 2 3 4 5
	W Wet	St Stiff	VC Very Compact	D Dense	STANDARD PENETRATION TESTS 6 12 3 4
	S Saturated	VSt Very Stiff		VD Very Dense	Total blows for 0.3m in 0.1m increments
	LL Liquid Limit	H Hard			
	PL Plastic Limit	50mm Diameter CONE TEST eg 10 3 4 3			

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY B.E.
CIRCULATION	DATE
START	TRACED BY D.W.W.
FINISH	DATE 26/11/79
SHEET 1 OF 2	

1643

MF 58

C-1

DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA

ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS KOOLAMAN ST. JOSLIN

SEC. 281 HD. ADELAIDE

EL Surface 37.243m.

EL ref. point

Datum A.H.D.

HOLE NO. 84 W

UNIT/STATE NO 6628390EW11124

SERIAL NO. 301/80

FOLDER NO 089071

Geological description of core	Depth m	Graphic log	Group symbol	Soil description	Moisture content	Consistency / Compact. Density	Blows per 30 cm	Soil test penetrometer
GRAVEL	10–15.6	gravel			S	D	C: 20,40,33,– (93)	
WEATHERED BEDROCK	15.6–17.15	bedrock			M		2-4-5 (11)	
End of Hole 17.15m.	17.15							

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date) 7 Dec '66; Casing	H — Humid	VS — Very Soft	Ls — Loose	VL — Very Loose	OPEN TUBE: A Shoe
WC Water Cut	D — Damp	S — Soft	MC — Moderately Compact	L — Loose	D Shoe
	M — Moist	F — Firm	C — Compact	MD — Medium Dense	SEALED TUBE WITH NUMBER
	W — Wet	St — Stiff	VC — Very Compact	D — Dense	STANDARD PENETRATION TESTS 9 2 3 4 Total blows for 0.3m in 0.1m increments
	S — Saturated	V St — Very Stiff		VD — Very Dense	
	LL — Liquid Limit	H — Hard			
	PL — Plastic Limit	C 50mm Diameter CONE TEST eg 10 3 4 3			

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE

CIRCULATION

START

FINISH

LOGGED BY B.E.

DATE

TRACED BY D.W.W.

DATE 26/11/79

SHEET 2 OF 2

1643

MF58

PROJECT: [redacted] TRANSIT CORRIDOR [redacted] - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: FULLER ST., WALKERVILLE

SEC. 476 HD. YATALA

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

EL. Surface 37.384 m. EL ref. point Datum A.H.D.

HOLE NO. B4 E
UNIT/STATE NO 6628390EW11125
SERIAL NO. 301/80
FOLDER NO. 089070

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compact Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3)
FILL		1 2 3 4 5 6 7			FILL :- Layer of bricks; Layer of bricks and roofing tiles; Metal					6.4.4 (14)	
SANDY SILT with GRAVEL		8 9 10									

WATER LEVELS: Water level (date) 7 Dec. 66; WC Water Cut

MOISTURE CONTENT: H Humid; D Damp; M Moist; W Wet; S Saturated; LL Liquid Limit; PL Plastic Limit

CONSISTENCY (Clays): VS Very Soft; S Soft; F Firm; St Stiff; V St Very Stiff; H Hard

COMPACTNESS (Silts): Ls – Loose; MC – Moderately Compact; C Compact; VC Very Compact

RELATIVE DENSITY (Sands): VL Very Loose; L Loose; MD – Medium Dense; D Dense; VD Very Dense

TYPE OF SAMPLE: OPEN TUBE A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (1 2 3 4); Total blows for 0.3m (in 0.1m increments)

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

C 50mm Dcmeter CONE TEST eg 10 3 4 5

DRILL TYPE | LOGGED BY C. Conor
CIRCULATION | DATE
START | TRACED BY D.W.W.
FINISH | DATE 26/11/79

SHEET 1 OF 3

1643

MF 58

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS FULLER ST. WALKERVILLE

SEC. 476 HD YATALA

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA

ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

EL Surface 37.384 m.

EL ref point Datum A.H.D.

HOLE NO. 84 E

UNIT/STATE NO. 6628390EW11125

SERIAL NO 301/80

FOLDER NO 089070

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia / DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, USBR Earth Manual 2nd Edition 1966	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compact Denisy	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 4)
WEATHERED BED-ROCK	10									
	11									
	12									
	13									
	14			Grey green & light brown clayey silt - occasional speckles						
	15								3·2·3 (8)	
	16			Light green and yellow silt - very speckled with weathered glauconite. Fossil casts.						
	17			As above. Corestones of cream, fresher rock.						
	18			Black silt without fossil casts and layers of floky brittle shell casts material.						
	19									
	20									

WATER LEVELS: 7 Dec '66 Casing; Water level (date); WC Water Cut

MOISTURE CONTENT: H Humid; D Damp; M Moist; W Wet; S Saturated; LL Liquid Limit; PL Plastic Limit

CONSISTENCY (Clays): VS Very Soft; S Soft; F Firm; St Stiff; V St Very Stiff; H Hard

COMPACTNESS (Silts): Ls Loose; MC Moderately Compact; C Compact; VC Very Compact

RELATIVE DENSITY (Sands): VL Very Loose; L Loose; MD Medium Dense; D Dense; VD Very Dense

TYPE OF SAMPLE: OPEN TUBE A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TEST; Total blows for 0.3m (in 0.1m increments)

C 50mm Diameter CONE TEST eg 10 3 4 8

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY C. Conor
CIRCULATION	DATE
START	TRACED BY D.W.W.
FINISH	DATE 26/11/79

SHEET 2 OF 3

1643

MF 58

C-14

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: **NORTHEAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.**

LOCATION OR CO-ORDS: FULLER ST., WALKERVILLE

SEC 476 HD YATALA

EL Surface 37.384 m.

EL ref point

Datum A.H.D.

HOLE NO. B4 E

UNIT/STATE NO 6628390EW11125

SERIAL NO 301/80

FOLDER NO 089070

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compct Densy	FIELD TEST DATA BLOWS PER 30 cm 4 8 16 32 64	SOIL TEST PENETROMETER Units * 1 2 3 4
		20	B-O							3-12 11 (26)	
END OF HOLE 20.5m		21									

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
1 Dec '66 Casing; Water level (date); WC ▶ Water Cut	H – Humid	VS – Very Soft	Ls – Loose	VL – Very Loose	OPEN TUBE: A Shoe
	D – Damp	S – Soft	MC – Moderately Compact	L – Loose	D Shoe
	M – Moist	F – Firm	C – Compact	MD – Medium Dense	SEALED TUBE WITH NUMBER
	W – Wet	St – Stiff	VC – Very Compact	D – Dense	STANDARD PENETRATION TEST 2 4
	S – Saturated	VSt – Very Stiff		VD – Very Dense	Total blows for 0.3m (in 0.15m increments)
	LL – Liquid Limit	H – Hard			
	PL – Plastic Limit				

∑ 50mm Diameter CONE TEST eq 10343

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY C. Conor
CIRCULATION	DATE
START	TRACED BY D.W.W.
FINISH	DATE 26/11/79

SHEET 3 OF 3

1643

MF 58

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTH EAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.
LOCATION OR COORDS: FULLER ST., WALKERVILLE
SEC. 477 HD. YATALA
EL Surface 37.358m.
EL ref point Datum A.H.D.

HOLE NO. B5 W
UNIT/STATE NO: 6628390EW11126
SERIAL NO: 301/80
FOLDER NO 089073

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL Casing	MOISTURE CONTENT	Consistency Compct Denstv	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 4)
FILL.					FILL:- Slightly clayey, silty fine-med. sand with plant roots above a gravelly medium-coarse sand with brick fragments		D	MD		>4.5
SAND. (SILTY)		1		SM (ML)	Brown, slightly clayey; silty fine sand. Occasional 1 cm pebble & charcoal. Light brown from 1.2 m. Grey and brown mottling from 2.1m.					>4.5
		2					M		4.2.3 (9)	
								MD		>4.5
		3								>4.5
		4			4.4m – Silty fine to medium sand.		D		3.3.2 (8)	
		5			5.7m – Medium to coarse sand.					>4.5
		6		SM	Medium to coarse sand.			MD	2.2.1 (5)	
				SM (ML)	Grey micaceous silty fine to medium sand with gravelly layer 6.15 – 6.3 m.					
		7		SP	30% gravelly (med.) coarse sand. Gravel subrounded (0 < gravel < 5 cm).		M			
				ML (CL)	Grey micaceous clayey silt with rust streaks. Gravelly 7.05 – 7.25 m.					
				SM (ML)	As from 6.05 – 6.1 m.			MD		
		8		ML (GM)	Grey micaceous silt with 10–20% sand and gravel up to 5 cm.	W.L 16.8.79			1.1.1 (3)	
							S			
GRAVEL (SANDY)		9		GP	A silty medium – coarse sandy gravel. Gravel fragments up to 10 cm but generally < 2 cm.					
		10								

WATER LEVELS	MOISTURE CONTENT (Clays)	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level 7 Dec 66 Casing; date; WC Water Cut	H Humid; I Damp; M Moist; W Wet; S Saturated; L Liquid Limit; P Plastic Limit	VS Very Soft; S Soft; F Firm; St Stiff; VSt Very Stiff; H Hard	Ls Loose; MC Moderately Compact; C Compact; VC Very Compact	VL Very Loose; L Loose; MD Medium Dense; D Dense; VD Very Dense	OPEN TUBE A Shoe; D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (1 2 3 4); Total blows for 0.3m (or 0.1m increments)

50mm Diameter CONE TEST ec 10 3 4

* Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY B.E.
CIRCULATION	DATE 16.8.79
START	TRACED BY D.W.W.
FINISH	DATE 26/11/79

SHEET 1 OF 2

1643

MF 58

C-16

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: FULLER ST., WALKERVILLE

SEC. 477 HD YATALA

EL Surface 37.358 m. EL ref. point Datum A.H.D.

HOLE NO. B5 W
UNIT/STATE NO 6628390EW11126
SERIAL NO 301/80
FOLDER NO 089073

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL Casing	MOISTURE CONTENT	Consistency Compact Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 4)
		10								
		11								
		12								
		13								
				GM (ML)	Green and brown mottled micaceous silt in sandy gravel up to 2cm					
		14		GM						
(SILT) COMPLETELY WEATHERED BED ROCK.		15			COMPLETELY WEATHERED BEDROCK - Cream silt with black speckles			Ls		
		16			Shell casts from 16·1 m.					
		17			Black silt with corestones of hard pebbles.			MC VC VC		
		18						MC	2-2-3(7)	
					Rock with shells				##	
					END OF HOLE 18·85m.					*
		19			Completed in fresh bedrock.					

Blows for 20 cm
* Blows for 25 cm.

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level 7 Dec 166 (date) Casing; WC Water Cut	H Humid; D Damp; M Moist; W Wet; S Saturated; LL Liquid Limit; PL Plastic Limit	VS Very Soft; S Soft; F Firm; St Stiff; VSt Very Stiff; H Hard	Ls Loose; MC Moderately Compact; C Compact; VC Very Compact	VL Very Loose; L Loose; MD Medium Dense; D Dense; VD Very Dense	OPEN TUBE: A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS: Total blows for 0·3m (in 0·1m increments)

C 50mm Diameter CONE TEST eg 10 3 4 5

* Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY B.E.
CIRCULATION	DATE 16·8·79
START	TRACED BY D.W.W.
FINISH	DATE 26/11/79

SHEET 2 OF 2

1643

MF 58

DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT **NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.**

LOCATION OR CO-ORDS Lambert Rd. Joslin

SEC 282 HD ADELAIDE

EL Surface 36·939 m

EL ref point Datum A.H.D.

HOLE NO. B5 E

UNIT/STATE NO. 6628390EW11127

SERIAL NO. 301/80

FOLDER NO 089072

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compct Densty	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 4)
FILL.		0		CL	FILL:- Brown clay with 20% fine gravel fragments. Small rubbish content			D			
		1			FILL:- Wood, plastic, paper, rubber, glass, metal, bricks, and occasional rock. Smelly. In silty and fine gravelly quartz sand.						
		2								2·2·3 (7)	
		3						M			
		4			Increase in blows from 3·9 m. possibly due to obstruction being pushed ahead.					3·1·3 (7)	
		5									
						W.L. (16·8·79)					
		6		SM (ML)	FILL:- Much less rubbish. In black clayey and silty fine sand containing about 5% subrounded gravel up to 5 cm.					2·2·3 (7)	
		7				W.L. (17·8·79)		MD			
		8						S			
					Greenish fine sandy silt with 30% gravel up to 20 cm.					2·5·10 (17)	
RIVER GRAVEL.		9		GM (ML) GP	GRAVEL:- Sandy subrounded fine to coarse quartz gravel. Quartz, siltstone, quartzite.						
		10									

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Casing 7 Dec. 166 Water level (date) WC Water Cut	H — Humid D — Damp M — Moist W — Wet S — Saturated LL — Liquid Limit PL — Plastic Limit	VS — Very Soft S — Soft F — Firm St — Stiff V St — Very Stiff H — Hard	Ls — Loose MC — Moderately Compact C — Compact VC — Very Compact	VL — Very Loose L — Loose MD — Medium Dense D — Dense VD — Very Dense	OPEN TUBE A Shoe, D Shoe SEALED TUBE WITH NUMBER (A 1 2 3 4 5) STANDARD PENETRATION TESTS (1 2 3 4) Total blows for 0.3m (in 0.1m increments)

50mm Diameter CONE TEST eg 10 3 4 3

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only.

DRILL TYPE	LOGGED BY B.EBERHARD
CIRCULATION	DATE
START	TRACED BY D.W.W.
FINISH	DATE 26/11/79

SHEET 1 OF 2

1643

MF 58

C-18

DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT-FOUNDATION INVTGN.

LOCATION OR CO-ORDS: Lambert Rd. Joslin

SEC. 282 HD. ADELAIDE

EL Surface 36·939

EL ref point

Datum A.H.D.

HOLE NO. B5 E

UNIT/STATE NO 6628390EW11127

SERIAL NO: 301/80

FOLDER NO. 089072

GEOLOGICAL DESCRIPTION OF CORE	DEPTH m	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, USBR Earth Manual 2nd Edition 1966	MOISTURE CONTENT	Consistency Compct Densy	FIELD TEST DATA BLOWS PER 30 cm
GRAVEL		GP				
	11					
	12			S		C 9,12,15 (36)
	13					
	14					
WEATHERED BEDROCK	15		COMPLETELY WEATHERED BEDROCK (Blanche Point Marl) Fine medium clayey silt. Sandy to 15·4 m. Green to 15·6 m.		MC	
			Light green and shally from 15·6 m.	M		
	16		Orange brown from 16·5 m.		C	
			HIGHLY WEATHERED BEDROCK. Black siltstone with shell casts.			
	17		MODERATELY WEATHERED ?		VW	2.2.10 (14)
			Black clayey silt.			
	18		END OF HOLE 18·2m		WK	6·31 (37)

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
7 Dec '66 Casing	H — Humid	VS — Very Soft	Ls — Loose	VL — Very Loose	OPEN TUBE A Shoe
Water level date	D — Damp	S — Soft	MC — Moderately Compact	L — Loose	D Shoe
WC ▶ Water Cut	M — Moist	F — Firm	C — Compact	MD — Medium Dense	SEALED TUBE WITH NUMBER
	W — Wet	St — Stiff	VC — Very Compact	D — Dense	STANDARD PENETRATION TESTS
	S — Saturated	V St — Very Stiff		VD — Very Dense	Total blows for 0·3m in 0·1m increments
	LL — Liquid Limit	H — Hard			
	PL — Plastic Limit	C 50mm Diameter CONE TEST eg 10:4			

✱ Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY B.EBERHARD
CIRCULATION	DATE
START	TRACED BY D.W.W.
FINISH	DATE 26/11/79
SHEET 2	OF 2

1643

MF 58

C-19

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: TENTH AVENUE ROYSTON PK.

SEC. 282 HD ADELAIDE

EL Surface 38·608m EL ref. point Datum A.H.D.

HOLE NO. 86
UNIT/STATE NO 6628390EW1112B
SERIAL NO 301/80
FOLDER NO 089074

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME (Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966)	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compct Densty	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 4)
TOPSOIL AND FILL					Grass, topsoil, rubble eg. concrete fragments			D	C		
SOIL down to zone of lime accumulation		1		ML	Dark brown to light brown, low plasticity calcareous silt, with minor sands and gravel, some fragments ≤ 20mm around 1·0 - 1·5m & 2·5 - 2·75m.				MC		>5
		2								2·3·3 (6)	
		3									
ALLUVIAL SILTS AND QUARTZ SANDS		4			Mottled light brown and dark brown silt.					1,1,2 (4)	
		5		SM					MD/L		
		6			Light grey to brown silty sands of variable composition and colouring. Micaceous in part.		Casing solid from here to surface			1·2·2 (5)	
		7									
		8				WL 31·7·79 ∈ 1·8·79	Slotted casing (PVC)	M	L	4·4·3 (11)	
					Brown sand with coarse sand sized mica fragments and thin peaty laminae.			W			
ALLUVIAL SANDS AND GRAVELS		9		GM	Silty sands ranging in grain size with many rounded pebbles of quartz, ≤ 20mm.						
		10									

RECENT TORRENS ALLUVIUM

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date) 7 Dec 66; Casing; WC Water Cut	H Humid; D Damp; M Moist; W Wet; S Saturated; LL Liquid Limit; PL Plastic Limit	VS Very Soft; S Soft; F Firm; St Stiff; V St Very Stiff; H Hard	Ls Loose; MC Moderately Compact; C Compact; VC Very Compact	VL Very Loose; L Loose; MD Medium Dense; D Dense; VD Very Dense	OPEN TUBE: A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (S 1 2 3 4); Total blows for 0·3m (if 0·1m increments)

50mm Diameter CONE TEST eg 10 3 4 5

* Penetrometer value X100 = uncontined compressive strength in kPa for clay soils only

DRILL TYPE CABLE TOOL	LOGGED BY C.CONOR
CIRCULATION	DATE 31·7·79
START 31·7·79	TRACED BY D.W.W.
FINISH 1·8·79	DATE 26/11/79
SHEET 1 OF 2	

1643

MF 58

DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: TENTH AVENUE ROYSTON PK.

SEC. 282 HD. ADELAIDE

EL Surface 38·608 m

EL ref. point Datum A.H.D.

HOLE NO. B6

UNIT/STATE NO. 6628390EW11128

SERIAL NO. 301/80

FOLDER NO. 089074

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL Casing	MOISTURE CONTENT	Consistency Compct Densy	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3)
RECENT TORRENS ALLUVIUM: ALLUVIAL QUARTZ SANDS AND GRAVELS.		10		GP/SW	Sandy gravels and gravelly sands of varying composition with occasional plastic silty horizons. Particle size up to 100 mm, rounded, mostly quartz.	Slotted casing 6 m (PVC)	W			
		11		GP						
		12								
		13		GM/GP				Ls		
		14								
		15		GM/SW						
		16				Solid casing below this point				
EOCENE BLANCHE POINT MARL: MARINE MARL COMPLETELY WEATHERED		17		ML	Yellow silt with numerous sand sized, dark brown, round grains.					
MODERATELY WEATHERED		18		SW/GP	Light green, soft to dark grey, green hard, non-calcareous rock with numerous gastropod bivalve and echinoid moulds.			MC		
UNWEATHERED		19			Stiff to hard dark grey, glauconitic rock similar to above but with calcareous shelly material.		D			
END OF HOLE 19·32 m		20								

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date) 7 Dec. '66; Casing; WC Water Cut	H — Humid; D — Damp; M — Moist; W — Wet; S — Saturated; LL — Liquid Limit; PL — Plastic Limit	VS — Very Soft; S — Soft; F — Firm; St — Stiff; V St — Very Stiff; H — Hard	Ls — Loose; MC — Moderately Compact; C — Compact; VC — Very Compact	VL — Very Loose; L — Loose; MD — Medium Dense; D — Dense; VD — Very Dense	OPEN TUBE: A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (1 2 3 4); Total blows for 0.3m (in 0.1m increments)

50mm Diameter CONE TEST eg 10 3 4

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE CABLE TOOL	LOGGED BY C.CONOR
CIRCULATION	DATE 31·7·79
START 31·7·79	TRACED BY D.W.W.
FINISH 1·8·79	DATE 26/11/79
SHEET 2 OF 2	

1643

MF 58

C-21

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: **NORTHEAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.**

LOCATION OR CO-ORDS: *Battams Rd. Marden*

SEC. *283* HD. *ADELAIDE*

EL Surface *37.617m*

EL ref point

Datum *A.H.D.*

HOLE NO. *B7E*

UNIT/STATE NO: *6628390EW11130*

SERIAL NO: *301/80*

FOLDER NO. *089075*

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, USBR Earth Manual 2nd Edition 1966	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compct Denssy	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	SOIL TEST PENETROMETER Units * (1 2 3 →)
TOPSOIL AND FILL				SM	*Grassed, clayey, silty soil with occasional quartz and cement pebbles.*			D	MC		
		1			*Silty fine to medium grained sands with occasional pebbles up to 7 cm.*						
		2			*Angular fragments of ? red clay brick in sandy material.*					4-4-4 (12)	
ALLUVIAL SILTY QUARTZ SANDS		3		SM	*Light grey silty fine grained sub-angular quartz sands, slightly micaceous.* *80 – 90% fine grained sand* *10 – 20% silt.*						
		4								1-1-1 (3)	
		5			*No recovery apart from saturated brown wood fragments at 5.35m. ? fossil, ? post, ? roots.*	WC →		M			
								S			
ALLUVIAL SANDS AND GRAVELS		6		GM	*Silty sand of varying grain size with variable amounts of fine to coarse quartz gravel, some fine mica. Woody fragments at 6.0 – 6.5 m & 7.5 – 8.65 m.*				VL		
		7									
		8									
		9				WC → 3.8.79					
		10									

RECENT TORRENS ALLUVIUM

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date) 7 Dec. 66; Casing; WC ▶ Water Cut	H — Humid; D — Damp; M — Moist; W — Wet; S — Saturated; LL — Liquid Limit; PL — Plastic Limit	VS — Very Soft; S — Soft; F — Firm; St — Stiff; V St — Very Stiff; H — Hard	Ls — Loose; MC — Moderately Compact; C — Compact; VC — Very Compact	VL — Very Loose; L — Loose; MD — Medium Dense; D — Dense; VD — Very Dense	OPEN TUBE: A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (1 2 3 →); Total blows for 0.3m (in 0.1m increments)

C 50mm Diameter CONE TEST eg 10 3 4 3

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE *CABLE TOOL*	LOGGED BY *C. CONOR*
CIRCULATION	DATE *3.8.79*
START *2.8.79*	TRACED BY *D.W.W.*
FINISH *3.8.79*	DATE *27/11/79*
SHEET *1* OF *2*	

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DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.

LOCATION OR CO-ORDS: Battams Rd. Marden

SEC 283 HD ADELAIDE

EL Surface 37.617 m

EL ref. point Datum A.H.D.

HOLE NO. B 7 E
UNIT/STATE NO 6628390EW1130
SERIAL NO 301/80
FOLDER NO 089075

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia / DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME (Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966)	WATER LEVEL / Casing	MOISTURE CONTENT	Consistency Compct Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3)
RECENT TORRENS ALLUVIUM									
ALLUVIAL SILTY SANDS AND GRAVELS	10		GM	Fine to coarse silty sands and quartz gravels with rounded clasts up to 7 cm.		S	VL		
	11								
	12								
	13			Gravel with greater variety of clasts eg. schists, slates.					
EOCENE BLANCHE POINT MARL									
MARINE MARL COMPLETELY WEATHERED	14		ML	Yellow silt with numerous sand sized, dark brown grains.		W			
MODERATELY WEATHERED AND POSSIBLY FISSURED	15		SM / GP	Light green, soft to dark grey-green, hard non-calcareous rock with numerous bivalve and gastropod moulds. Anomalous polygenetic gravel at 15.1 – 15.2 m.		D	C	2.2.2 (6)	Variable
SLIGHTLY WEATHERED AND POSSIBLY FISSURED	16			Dark grey-green marl with white calcareous mollusc shells. Also occasional rounded quartz pebbles to 16.35 m.					
END OF HOLE 16.70m									

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
7 Dec. '66 Casing; Water level (date); WC Water Cut	H — Humid; D — Damp; M — Moist; W — Wet; S — Saturated; LL — Liquid Limit; PL — Plastic Limit	VS — Very Soft; S — Soft; F — Firm; St — Stiff; V St — Very Stiff; H — Hard	Ls — Loose; MC — Moderately Compact; C — Compact; VC — very Compact	VL — Very Loose; L — Loose; MD — Medium Dense; D — Dense; VD — very Dense	OPEN TUBE: A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (1 2 3 4); Total blows for 0.3m (in 0.1m increments)

50mm Diameter CONE TEST eg 10 3 4 3

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE CABLE TOOL	LOGGED BY C.CONOR
CIRCULATION	DATE 3·8·79
START 2·8·79	TRACED BY D.W.W.
FINISH 3·8·79	DATE 27/11/79
SHEET 2 OF 2	

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DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS LANSDOWNE TERRACE, BASE OF SAND PIT EL Surface 34·399 m

SEC. PT 478 HD YATALA EL ref point Datum A.H.D.

HOLE NO. B 7 W

UNIT/STATE NO 6628390EW11129

SERIAL NO: 301/80

FOLDER NO 089076

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL	MOISTURE CONTENT	Consistency Compct Denssy	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3)
RECENT TORRENS ALLUVIUM										
ALLUVIAL SILTS AND QUARTZ SANDS		1		SM	Brown and grey silty fine to coarse grained sands with occasional minor pebble horizons. Brown wood at 1·5 - 1·95 m & 2·25 - 2·55 m.		D	MD		
								L		
								MD		
								L		
		2			(Unreliable S.P.T - 5 in wood S.P.T. probably 1,1,1 ie 3).				? 1.5·1(?)	
								VL		
ALLUVIAL SILTY SANDS AND GRAVELS		3		GM	Predominantly gravels with silt and fine to coarse quartz sand.					
						WL 7·8·79	S			
		4								
		5								
		6								
		7								
		8								
		9								
		10								

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date) 7 Dec '66; Casing; WC Water Cut	H — Humid	VS — Very Soft	Ls—Loose	VL — Very Loose	OPEN TUBE
	D — Damp	S — Soft	MC—Moderately Compact	L — Loose	A Shoe
	M — Moist	F — Firm		MD — Medium Dense	D Shoe
	W — Wet	St — Stiff	C — Compact	D — Dense	SEALED TUBE WITH NUMBER (A 1 2 3 4 5)
	S — Saturated	V St — Very Stiff	VC — Very Compact	VD — Very Dense	STANDARD PENETRATION TESTS (1 2 3 4)
	LL — Liquid Limit	H — Hard			Total blows for 0·3m (or 0·1m increments)
	PL — Plastic Limit	C 50mm Diameter CONE TEST eg 10 3 4 3			

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE CABLE TOOL	LOGGED BY C.CONOR
CIRCULATION	DATE 7·8·79
START 6·8·79	TRACED BY D.W.W.
FINISH 7·8·79	DATE 27/11/79
SHEET 1 OF 2	

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DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: LANDSDOWNE TERRACE, BASE OF SAND PIT. EL Surface 34·399 m.

SEC. PT 478 HD YATALA EL ref. point Datum A.H.D.

HOLE NO. B7W
UNIT/STATE NO: 662B390EW11129
SERIAL NO: 301/80
FOLDER NO 089076

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia / DEPTH	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, USBR Earth Manual 2nd Edition 1966	WATER LEVEL	MOISTURE CONTENT	Consistency Compct Denssy	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3)
RECENT TORRENS ALLUVIUM	10			Polygenetic coarse sand and silty fine gravel					
	11		ML	Fine grained yellow plastic silt with brown sand sized grains		W	C		
EOCENE BLANCHE POINT MARL — MARINE MARL COMPLETELY WEATHERED									
MODERATELY WEATHERED	12		GP	Light green - grey marl becoming darker coloured, harder and calcareous at depth.					
	13								
	14			END OF HOLE 14·26m				30	(30)

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
7 Dec '66 Casing; Water level (date); WC Water Cut	H Humid; D Damp; M Moist; W Wet; S Saturated; LL Liquid Limit; PL Plastic Limit	VS Very Soft; S Soft; F Firm; St Stiff; VSt Very Stiff; H Hard	L Loose; MC Moderately Compact; C Compact; VC Very Compact	VL Very Loose; L Loose; MD Medium Dense; D Dense; VD Very Dense	OPEN TUBE: A Shoe, D Shoe; SEALED TUBE WITH NUMBER (1 2 3 4 5); STANDARD PENETRATION TESTS (1 2 3 4); Total blows for 0.3m (in 0.1m increments)

50mm Diameter CONE TEST eg 10 2 4 3

* Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only

DRILL TYPE CABLE TOOL	LOGGED BY C.CONOR
CIRCULATION	DATE 7.8.79
START 6·8·79	TRACED BY D.W.W.
FINISH 7·8·79	DATE 26/11/79
SHEET 2 OF 2	

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DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT **NORTHEAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.**

LOCATION OR CO-ORDS. O.G. ROAD, KLEMZIG

SEC. P.T 490 HD YATALA

EL Surface 42·736m

EL ref point Datum A.H.D.

HOLE NO. 88 E
UNIT/STATE NO 6628390 EW 11134
SERIAL NO 301/80
FOLDER NO 089077

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R Earth Manual 2nd Edition 1966	WATER LEVEL	MOISTURE CONTENT	Consistency Compct Densty	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 4)
Top Soil.				OL	Dark brown organic silty, sandy gravelly clay. (~20%).		H	F	Hand Augered	
Alluvial Clay.		1		CL	Brown silty sandy clay sand of section: very fine, up to 40%. Minor gravel (<2%)		H	H		
								St	(2 4 5)	
		2							10 (4 3 3)	
		3							15 (4 5 6)	
Alluvial clayey sands.		4		SC ML	Brown clayey (20–35%) silty medium sands		H	St		
								M.D.		
		5		SC CL	45–51 m. ~50% clay matrix					
Clay.		6		CL	Brown green (khaki) mottled brown sandy (fine, up to 10%) clay – medium plasticity.		H	St		
Alluvial sands and gravel							H	St		
		7		SC GW	Gravelly (up to 40%, coarse up 5cm) coarse sands 6·65 – 6·75 m. Up to 30% clay matrix. 6·75 – 7·35 m. ~5–10% clay matrix Well graded sands.		D	M.D.	21 (6 8 5)	
								M.D.		
				GW SP	Well graded gravels with up to 40% coarse sands, minor clay.		M	L		
		8					W	L		
					W.L. ▼ (31·7·79)		M			
				GW	Well graded gravels little fines, up to 20% sands. Gravels ranging up to 7, 10 cm.		S		25 (9 7 9)	
		9								
				CH	Dark grey, highly plastic malleable clay, <20% very fine sands.			S		
		10		CW				S		

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level 7 Dec '66 Casing; Water level date; WC ▶ Water Cut	H Humid; D Damp; M Moist; W Wet; S Saturated; LL Liquid Limit; PL Plastic Limit	VS Very Soft; S Soft; F Firm; St Stiff; VSt Very Stiff; H Hard	Ls Loose; MC Moderately Compact; C Compact; VC Very Compact	VL Very Loose; L Loose; MD Medium Dense; D Dense; VD Very Dense	OPEN TUBE A Shoe; D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (1 2 3 4); Total blows for 0·3m (in 0·1m increments)

50mm Diameter CONE TEST ea 10 m

✱ Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only

DRILL TYPE CABLE TOOL	LOGGED BY X.P.S.
CIRCULATION AIR/WATER	DATE 31·7·79
START 30·7·79	TRACED BY D.W.W.
FINISH 31·7·79	DATE 27/11/79
SHEET 1 OF 2	

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DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: **NORTHEAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.**

LOCATION OR CO-ORDS: O.G. ROAD, KLEMZIG

SEC. PT. 490 HD. YATALA

EL Surface 42.736 m

EL ref. point Datum A.H.D

HOLE NO. BB E

UNIT/STATE NO: 6628390 EW11134

SERIAL NO 301/80

FOLDER NO 089077

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia / DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME (Unified Soil Classification, USBR Earth Manual 2nd Edition 1966)	WATER LEVEL / Casing	MOISTURE CONTENT	Consistency Compct Denssy	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 4)
	10		GW	Well graded gravels, < 20% sands				10·10·13 (33)	
	11								Drilled with "Star" bit.
	12								
Silicified Tertiary capping.	13			Slow penetration rates Silicified sands					
Blanche Pt. Marls	14		SP	Dark green spotted black, minor clayey (<5%) Well sorted coarse sands, including ~40% well rounded fine to coarse opaques (limonite), glauconite 14.2 - 14.75 dirty brown mottling; minor fossils.				2·1·4 (7)	
				END OF HOLE 14.75m					

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date) 7 Dec '66 Casing WC Water Cut	H – Humid D – Damp M – Moist W – Wet S – Saturated LL – Liquid Limit PL – Plastic Limit	VS – Very Soft S – Soft F – Firm St – Stiff V St – Very Stiff H – Hard	LS – Loose MC – Moderately Compact C – Compact VC – Very Compact	VL – Very Loose L – Loose MD – Medium Dense D – Dense VD – Very Dense	OPEN TUBE A Shoe D Shoe SEALED TUBE WITH NUMBER (A 1 2 3 4 5) STANDARD PENETRATION TESTS (1 2 3 4) Total blows for 0.3m (or 0.1m increments)

50mm Diameter CONE TEST eg 10 3 4 0

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE CABLE TOOL — LOGGED BY XPS

CIRCULATION AIR/WATER — DATE 30-31-7-79.

START 30-7-79 — TRACED BY D.W.W.

FINISH 31-7-79 — DATE 27/11/79

SHEET 2 OF 2

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DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: **NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.**

LOCATION OR CO-ORDS: *CHURCH ST. MARDEN*

SEC. *PT. 284* HD. *ADELAIDE*

EL Surface *36·899m.*

EL ref. point Datum *A.H.D.*

HOLE NO. *B8 W*
UNIT/STATE NO: *6628390EW11133*
SERIAL NO. *301/80*
FOLDER NO. *089078*

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, USBR Earth Manual 2nd Edition 1966	WATER LEVEL Casing	MOISTURE CONTENT Consistency Compct Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	SOIL TEST PENETROMETER Units * (1 2 3 –)
Alluvial Sands and gravels.		0		SC	*Dark brown coarse sands with minor gravels. Silty and clayey - up to 5%*		H MD/L		
		1		SP/GW	*Brown grey coarse sands with up to ~40% well graded gravels (small to ~10 cm), minor wood and charcoal fragments*				
		2			*2·1 - 2·55 ~50% gravels.*		H MD/L		*10·7 5 (22)*
		3		GW/SP	*Light brown - grey well graded gravels with up to 40% coarse sands. Less than 20% fines.* W.L. 1·8·79	W	W L		
		4			*3·45 - 4·05 m. Less than 30% sand fraction.*	W	S		
		5		GW	*Well graded gravels - medium grained to over 5 cm. Less than 5% sands. 4·35 - 4·65 m. No samples. As above, sludge sampling.*				*4 6 16 (26)*
		6		GC	*Up to 5% fines.*		VSt		
				CH	*Very stiff dark brown clay*				
				GC/SC	*Well graded gravels (up to 10 cm) and sands with up to 10% green mottled brown pyritic sandy clay / clayey fine sands.*				
		7		CH/CL	*Very stiff green mottled brown plastic sandy clay.*		VSt		
				GC	*Well graded gravels and coarse sand (< 20%) with up to 10% sandy clay clumps.*				
Weathered Blanch PT. Marls.		8		SC/CH	*Green mottled brown clayey glauconitic sands (inc. 10 - 50% rounded coarse limonitic grains).*		M D		
					Graded gravels (up to 10 cm.) in clayey (~20%) green glauconitic limonitic sands. Decreasing amount of gravel 8·6 - 8·8 m.				
		9		SC/CH	*Green mottled grey brown clayey (≤ 20%) glauconitic limonitic (~50%) sands.*				
		10		GC-SC-CL					

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level 7 Dec. 66 (date) Casing; WC ▶ Water Cut	H — Humid; D — Damp; M — Moist; W — Wet; S — Saturated; LL — Liquid Limit; PL — Plastic Limit	VS — Very Soft; S — Soft; F — Firm; St — Stiff; VSt — Very Stiff; H — Hard	Ls — Loose; MC — Moderately Compact; C — Compact; VC — Very Compact	VL — Very Loose; L — Loose; MD — Medium Dense; D — Dense; VD — Very Dense	OPEN TUBE A Shoe, D Shoe; SEALED TUBE WITH NUMBER A 1 2 3 4 5; STANDARD PENETRATION TESTS S 1 2 3 4; Total blows for 0.3m (in 0.1m increments)

50mm Diameter CONE TEST ex 10343

* Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only

DRILL TYPE *CABLE TOOL*	LOGGED BY *XPS*
CIRCULATION *AIR*	DATE
START *1·8·79*	TRACED BY *D.W.W.*
FINISH	DATE *27/11/79*
SHEET *1* OF *2*	

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MF 58

DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT **NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.**

LOCATION OR CO-ORDS *CHURCH ST. MARDEN*

SEC *PT 284* HD *ADELAIDE*

EL Surface *36·899m.*

EL ref. point

Datum *A.H.D.*

HOLE NO. *BB W*

UNIT/STATE NO *6628390 EW/11133*

SERIAL NO *301/80*

FOLDER NO *089078*

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME (Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966)	WATER LEVEL	MOISTURE CONTENT	Consistency Compct Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 4)
Seepage in Blanche Pt Marl.				SC/CL	*Mainly fragments (~70%, up to 5 cm.) of indurated green dark grey fossilliferous, glauconitic, limonitic (30-40%) marl-stones, calcareous.*		S	F St		
	11				*10-10·1 m Soft, malleable dark grey-black silty, sandy, glauconitic marl and ~30% marlstone ?*		S	H	35	
					10·1-10·55 m Mainly strongly indurated fossiliferous (cherty ?) dark grey glauconitic marlstone - calcareous, with thin layers of plastic firm to hard silty sandy marl.					
					END OF HOLE 10·55 m.					

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Casing; 7 Dec '66; Water level (date); WC Water Cut	H — Humid D — Damp M — Moist W — Wet S — Saturated LL — Liquid Limit PL — Plastic Limit	VS — Very Soft S — Soft F — Firm St — Stiff V St — Very Stiff H — Hard	Ls — Loose MC — Moderately Compact C — Compact VC — Very Compact	VL — Very Loose L — Loose MD — Medium Dense D — Dense VD — Very Dense	OPEN TUBE: A Shoe, D Shoe SEALED TUBE WITH NUMBER (A 1 2 3 4 5) STANDARD PENETRATION TESTS (1 2 3 4) Total blows for 0.3m (or 0.1m increments)

50mm Diameter CONE TEST eg 10 3 4 3

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE *CABLE TOOL*	LOGGED BY *X.P.S.*
CIRCULATION *AIR*	DATE
START *1·8·79*	TRACED BY *D.W.W.*
FINISH	DATE *27/11/79*

SHEET *2* OF *2*

1643

MF 58

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DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.

LOCATION OR CO-ORDS: JAMES ST. BRIDGE SITE

SEC. PT 308 HD. ADELAIDE

EL Surface 43.958m

EL ref. point Datum A.H.D.

HOLE NO. B9 E

UNIT/STATE NO: 6628350EW11138

SERIAL NO: 301/80

FOLDER NO 089079

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R Earth Manual 2nd Edition 1966	WATER LEVEL Casing	MOISTURE CONTENT	Consistency Compct Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3)
Red brown clay filling.				CH	Red brown calcareous plastic clay, minor sand & gravels (< 3%).	H	H	F/St		
				SC	Dk. brown silty, clayey (< 3%), fine medium sands, ~10% gravels		H	M.D		
Alluvial sands and gravels		1		SP GW	Medium - coarse well sorted quartz sands – brown grey with up to 40% gravel, generally 1 - 2 cm, up to 10cm			L/M.D	5 (2.2.2.)	
		2								
					2·85 - 4·2 Sampling disturbed by thick jarrah timber.					
		3								
							H	L/M.D.		
		4			4·2 - 4·8 Gravelly, well sorted coarse sands as above ? < 20% gravels.		S		3.9.16 (28)	
		5		GW/SP	Well graded gravels, (up to 15cm) with up to 40% coarse well sorted sands.	WL 27.7.79				
				SC/CH	Thin sandy clay lens.	WC				
		6		GW/SP	Gravels & sands, little fines. Sludge sampling.					
		7								
		8		CH/SC	Sandy limanitic (~30% coarse rounded opaques) glauconitic plastic clay.					
Weathered Blanche Point Marl?										
Weathered Blanche Point Marl				SC	Green mottled brown clayey (<10%) silty glauconitic coarse sands. 60% coarse well rounded opaques)				2.3.4 (9)	
		9			END OF HOLE 9.05m.					
		10								

WATER LEVELS: 7 Dec. 166 Casing; Water level (date); WC ▶ Water Cut

MOISTURE CONTENT: H — Humid; D — Damp; M — Moist; W — Wet; S — Saturated; LL — Liquid Limit; PL — Plastic Limit

CONSISTENCY (Clays): VS — Very Soft; S — Soft; F — Firm; St — Stiff; V St — Very Stiff; H — Hard

50mm Diameter CONE TEST eg 10 x 4

COMPACTNESS (Silts): Ls — Loose; MC — Moderately Compact; C — Compact; VC — Very Compact

RELATIVE DENSITY (Sands): VL — Very Loose; L — Loose; MD — Medium Dense; D — Dense; VD — Very Dense

TYPE OF SAMPLE: OPEN TUBE — A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS — Total blows for 0.3m (in 0.1m increments)

* Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only

DRILL TYPE CABLE TOOL	LOGGED BY XPS
CIRCULATION AIR/WATER	DATE 25-26/7/79
START 25.7.79	TRACED BY D.W.W.
FINISH 27.7.79	DATE 27/11/79
SHEET 1 OF 1	

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MF 58

C-30

DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: JAMES ST. KLEMZIG

SEC Pt 493 HD YATALA

EL Surface 46·502 m

EL ref point Datum A.H.D

HOLE NO. B9 W

UNIT/STATE NO: 6628390EW11137

SERIAL NO 301/80

FOLDER NO 089080

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL Casing	MOISTURE CONTENT	Consistency Compact Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 →)
TOPSOIL				OL/GC	Dark brown organic clays and silts with ~50% gravels and boulders.		H	St		
ALLUVIAL CLAY SILT				CL/ML	Dark brown silty clay with minor fine sands and calcareous concretions. Low plasticity		H	F		
		1			Increase in silt and sand with depth.			St		
								St		
								VSt		
		2						St	6-6-5 (17)	
ALLUVIAL SANDS				SP/SC	Brown silty (minor) fine well sorted sands. Minor clay and slightly micaceous.		H	MD		
		3			3·5-3·7 m. Up to 10% clay					
				SC	3·7-4·8 m. Up to 10% very coarse sands and minor gravels.					
		4							5-5-5 (15)	
		5		SP	Micaceous fine to medium sands well sorted, less than 2% clay and silt 5·2-5·3 m. Up to 10% silty clay, grey mottling					
				SP/SC	5·3-5·9 m. Less than 5% silty clay micaceous.					
		6		SP	Clean fine - medium sands					
				CL/CI	Dark brown silty clay		H	St		
				SP	Medium coarse brown khaki well sorted sands.		H	MD		
ALLUVIAL GRAVELS		7		GW	Well graded gravels, fine sands to coarse gravels (up to 4 cm) - mainly quartz / quartzite well rounded. Minor silt / clay fraction.		D	MD	3-4-4 (11)	
				CL/CI	Brown sandy (~40%) clay - plastic.		D	F		
		8		GW/GC	Well graded gravels, minor clay to 15 cm rounded boulders.		W	MD	2-3-4 (9)	
				SP/SM/GC	Mainly medium coarse sands with minor gravels (up to 4 cm) and minor clay.		W	MD		
				GW/GC	Gravels, dark brown to light brown, as for 7·7-8·0 m. W.L. ▶ 25-7-79		W/S	MD		
		9			Gravels and coarse sands - minor fines.					
		10								

Drilled with 'Star' bit

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date) 7 Dec '66; Casing; WC ▶ Water Cut	H — Humid; D — Damp; M — Moist; W — Wet; S — Saturated; LL — Liquid Limit; PL — Plastic Limit	VS — Very Soft; S — Soft; F — Firm; St — Stiff; VSt — Very Stiff; H — Hard	Ls — Loose; MC — Moderately Compact; C — Compact; VC — Very Compact	VL — Very Loose; L — Loose; MD — Medium Dense; D — Dense; VD — Very Dense	OPEN TUBE: A Shoe; D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (1 2 3 4); Total blows for 0.3m (in 0.1m increments)

50mm Diameter CONE TEST ec 10 : 1

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE CABLE TOOL	LOGGED BY X. P.S.
CIRCULATION AIR/WATER	DATE 23-24/7/79
START	TRACED BY D.W.W.
FINISH	DATE 27/11/79

SHEET 1 OF 2

1643

MF 58

C-31

DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: JAMES ST KLEMZIG

SEC. PT 433 HD. YATALA

EL Surface 46·502 m

EL ref. point Datum A.H.O.

HOLE NO. B9 W

UNIT/STATE NO 6628390EW11137

SERIAL NO: 301/80

FOLDER NO 089080

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL Casing	MOISTURE CONTENT	Consistency Compct Densy	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3)
				GW	Sludge sampling :- gravels and sands, minor fines.					
Completely to strongly weathered Blanche Point Marl.		11		CH/CL	Green mottled grey sandy (5-20%), medium - coarse well rounded opaques - (limonitic) plastic clay. Minor orange mottling. Minor gravels. Glauconitic.					
		12			12·0 - 12·5m. Up to 20% weakly indurated green grey rock fragments (weathered Blanche Point Marl).					
CLAYSTONE		13		GW/CH	Up to 7% (increasing with depth) weakly to strongly indurated weathered Blanche Point Marl fragments up to 20 cm, fossiliferous - green grey with up to 10% well rounded opaques in claystone matrix, mottled orange glauconitic.					
		14								
END OF HOLE 14·15m										

Drilled with "Star" bit

3.3.4 (10)

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date) 7 Dec '66; Casing; WC Water Cut	H Humid; D Damp; M Moist; W Wet; S Saturated; LL Liquid Limit; PL Plastic Limit	VS Very Soft; S Soft; F Firm; St Stiff; V St Very Stiff; H Hard	Ls Loose; MC Moderately Compact; C Compact; VC Very Compact	VL Very Loose; L Loose; MD Medium Dense; D Dense; VD Very Dense	OPEN TUBE A Shoe; D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (1 2 3 4); Total blows for 0.3m (or 0.1m increments)

50mm Diameter CONE TEST eg 10 3 4 3

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE CABLE TOOL	LOGGED BY Y.P.S.
CIRCULATION AIR/WATER	DATE 23-24·7·79
START 23·7·79	TRACED BY D.W.W.
FINISH	DATE 27/11/79

SHEET 2 OF 2

1643

MF 58

C-32

DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: DARLEY ROAD WINDSOR GDNS.

SEC: PT 508 HD: YATALA

EL Surface: 55·183 m

EL ref. point: Datum: A.H.D.

HOLE NO. B 10 N

UNIT/STATE NO: 6628390EW11141

SERIAL NO: 301/80

FOLDER NO: 089081

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compct Densy	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	SOIL TEST PENETROMETER Units * (1 2 3)
TOPSOIL			calc. / calc.	SP	SAND, Brown, calcareous silty fine to medium sand. Contains organic material & occasional small pebbles.						
SAND AND GRAVEL		1		SP	SAND, Dark brown, non-calcareous fine to coarse sand. Small silt content. Occasional subrounded quartz gravel (1-2 cm). Charcoal fragments.				MD / Ls		
		2		SP	GRAVELLY SAND, - Lighter, brown, fine to coarse sand with 10-20% sub-rounded gravel, occasionally up to 15 cms. Wood chips.			H	Ls	6 (2.1.3.)	
		3									
		4		SP	GRAVELLY SAND, - Light brown, med-coarse sand with mainly fine-med gravel (10%) and occasional larger gravel. Many charcoal fragments.			D			
GRAVEL AND SAND		5		SP / GM	GRAVELLY SAND, - Green silty and gravelly sand. Gravel up to > 10 cms. Slightly micaceous. Charcoal. WL & WC 8.7.79			S		14 (6.5.3)	
		6		GP / SP	SANDY GRAVEL - Medium coarse sand with large boulders > Small silt and fine sand content. Charcoal.						
		7		SP / GM	GRAVELLY SAND, - Green. Med coarse sand with coarser gravel & boulders. Silty and fine sandy. Slightly micaceous. Charcoal.						
COMPLETELY WEATHERED BEDROCK.					Feldspathic Sandstone - Completely weathered to white, silty, slightly clayey coarse sand. WL & WC 19.7.79			S	CW		
		8									
		9									
		10									

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date): 1 Dec '66; Casing; WC ▶ Water Cut	H — Humid; D — Damp; M — Moist; W — Wet; S — Saturated; LL — Liquid Limit; PL — Plastic Limit	VS — Very Soft; S — Soft; F — Firm; St — Stiff; VSt — Very Stiff; H — Hard	Ls — Loose; MC — Moderately Compact; C — Compact; VC — Very Compact	VL — Very Loose; L — Loose; MD — Medium Dense; D — Dense; VD — Very Dense	OPEN TUBE: A Shoe; D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TEST (1 2 3 4); Total blows for 0.3m (in 0.1m increments)

50mm Diameter CONE TEST eg 10 3 4 0

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY B.E.
CIRCULATION	DATE
START	TRACED BY E.C.
FINISH	DATE 26/11/79

SHEET 1 OF 1

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MF 58

C-33

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: DARLEY ROAD (NTH)

SEC. 334 HD. ADELAIDE

EL Surface 59·208m

EL ref. point Datum A.H.D.

HOLE NO. B10 S
UNIT/STATE NO: 6628390E W11140
SERIAL NO: 301/80
FOLDER NO 089082

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL Casing	MOISTURE CONTENT	Consistency Compct Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 4)
TOPSOIL				SC/ML	Brown silty fine sand with organic material.					0
ALLUVIUM – silty fine sands		1		SC/ML	SILTY SAND, - Light brown calcareous silty fine sand with organic material. White limey accretions. More calcareous with depth.		Dry	V.D		≥ 4·5
		2			Micaceous and fewer lime accretions from 1·75 m.			D	3, 3, 2 (8)	≥ 4·5
		3			Darker brown, siltier, with small med - coarse sand fraction. from 2·45 - 3·9 m.			H / M.D. / L		
		4		ML	SILT, - Calcareous, mottled brown and green brown. Small fine sand content. Micaceous.			H	2, 2, 4 (8)	≥ 4·5
GRAVEL, silty.		5		GM/GC	Silty and sandy gravel. 30% angular gravel (5 cms.) from 4·7 m.			M.D / C / V.D.		≥ 4·5 / Broken up / ≥ 4·5
SAND, fine silty. Sample taken		6		SC/ML	Silty fine sand. Mottled brown & grey. Very micaceous and slightly calcareous with occasional charcoal fragments and 0·5 cm ferruginous nodules. Occasional angular 0·5 cm pebbles and 10% med. coarse sand to 6·2 m. Non-calcareous from 6·75 m.			V.D. / M / M.D	10, N.G (27)	≥ 4·5
		7								
		8								
GRAVEL, COARSE SAND		9		GP/SP	GRAVEL, - Medium - coarse sand and gravel up to > 15 cm. Mainly subrounded and rounded quartz, quartzite & siltstone. Some Ilmenite. ?	WC →	W	VD		
		10				WL →	W / S	S		

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date) 7 Dec '66 Casing; WC ▶ Water Cut	H – Humid; D – Damp; M – Moist; W – Wet; S – Saturated; LL – Liquid Limit; PL – Plastic Limit	VS – Very Soft; S – Soft; F – Firm; St – Stiff; V St – Very Stiff; H – Hard	Ls – Loose; MC – Moderately Compact; C – Compact; VC – Very Compact	VL – Very Loose; L – Loose; MD – Medium Dense; D – Dense; VD – Very Dense	OPEN TUBE ..... A Shoe ..... D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (1 2 3 4); Total blows for 0·3m (or 0·1m increments)

C 50mm Diameter CONE TEST eg 10 3 4 2

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY B.E.
CIRCULATION	DATE
START	TRACED BY D.W.W.
FINISH	DATE 27/11/79

SHEET 1 OF 2

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DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS DARLEY ROAD NTH

SEC. 334 HD. ADELAIDE

EL Surface 59.208m

EL ref. point Datum A.H.D.

HOLE NO. B105

UNIT/STATE NO 6628390EW11140

SERIAL NO: 301/80

FOLDER NO. 089082

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R Earth Manual 2nd Edition 1966	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compct Denst	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3)
		0		GP/SP	Gravel as above.			S / W	VD		
completely weathered bedrock.		10		ML	White silt contains thin vertical white silt (bleached joint ?).			M	C		≥4.5
sample taken		11							VC		≥4.5
		12			END OF HOLE 12.5m.						

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date) 7 Dec '66 Casing	H Humid	VS Very Soft	Ls Loose	VL Very Loose	OPEN TUBE
WC Water Cut	D Damp	S Soft	MC Moderately Compact	L Loose	A Shoe
	M Moist	F Firm	C Compact	MD Medium Dense	D Shoe
	W Wet	St Stiff		D Dense	SEALED TUBE WITH NUMBER (1 2 3 4 5)
	S Saturated	V St Very Stiff	VC Very Compact	VD Very Dense	STANDARD PENETRATION TESTS
	LL Liquid Limit	H Hard			Total blows for 0.3m (0.1m increments)
	PL Plastic Limit	C 50mm Diameter CONE TEST eg 10 : 4			

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only.

DRILL TYPE	LOGGED BY B.E.
CIRCULATION	DATE
START	TRACED BY E.R.C.
FINISH	DATE Nov. 26, 1979
SHEET 2 OF 2	

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MF 58

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DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: SMART ROAD, TEA TREE PLAZA

SEC. 781 HD. YATALA

EL Surface 127.407 m

EL ref. point Datum A.H.D.

HOLE NO. GS15

UNIT/STATE NO: GG28320EW11148

SERIAL NO: 301/80

FOLDER NO. 089084

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia / DEPTH	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compct Densy	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	SOIL TEST PENETROMETER Units * (1 2 3)
TOPSOIL			OL	Dark brown calc. organic top soil.			H	St		
Alluvial gravels and silty sand clays			GM	Light brown mottled white calcareous silty (10-30%) clayey (<5%) gravels (graded up to 10 cm) consisting of calcrete and quartzite fragments.			H	D		
	1		CL/GC	Brown sandy calcareous clay, sand fraction ~50%, minor gravels, friable.			H	F		
Alluvial? sandy clays			CL	Dark brown mottled cream clay ~1% medium grained sands, minor gravels.			H	VSt	4, 4, 4 (12)	
	2		CL	Dark brown mottled cream calcareous clay with 30-40% sands and minor gravels (slates/quartzite).			H	VSt		
								St		
completely weathered shaly bedrock.			CL/CH	Cream white and orange brown sandy (5%) slightly silty clay - medium to high plasticity. Gritty - minor fragments of finely layered claystone.			H	St tc	4, 4, 6 (14)	
	3							VSt		
	4									
	5									
	6								7, 7, 6 (20	
				7-7.05 m. Finely layered claystone, 2-5% coarse quartz grains.						
	7		CL/GL	As above with 30-50% indurated dark brown shaly rock fragments.			H	VSt		
			CH/CL	Cream and orange-brown clays - moderately high plasticity, with minor layered claystone fragments.			H	VSt	6, 12, 15 (33)	
	8						H	VSt		
	9									
	10									

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Casing; 7 Dec '66; Water level (date); WC ▶ Water Cut	H — Humid; D — Damp; M — Moist; W — Wet; S — Saturated; LL — Liquid Limit; PL — Plastic Limit	VS — Very Soft; S — Soft; F — Firm; St — Stiff; V St — Very Stiff; H — Hard	Ls — Loose; MC — Moderately Compact; C — Compact; VC — Very Compact	VL — Very Loose; L — Loose; MD — Medium Dense; D — Dense; VD — Very Dense	OPEN TUBE: A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (S 1 2 3 4); Total blows for 0.3m (in 0.1m increments)

50mm Diameter CONE TEST eg 10 3 4 5

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE PERCUSSION	LOGGED BY X.P.S.
CIRCULATION AIR	DATE 19-20-7.79
START 19.7.79	TRACED BY D.W.W.
FINISH 20.7.79	DATE 27/11/79
SHEET 1 OF 2	

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MF 58

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DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: SMART ROAD, TEA TREE PLAZA

SEC. 781 HD. YATALA

EL Surface 127.407m

EL ref. point

Datum A.H.D.

HOLE NO. GS / 5

UNIT/STATE NO 6628320EW1148

SERIAL NO: 301/80

FOLDER NO. 089084

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compct Densy	FIELD TEST DATA BLOWS PER 30 cm (4 8 16 32 64)	SOIL TEST PENETROMETER Units * (1 2 3)
				CH/CL	As above. Light brown, layered plastic clay, minor grit.			H	St		
		11		CL/ML	11·1 - 11·4m. Clay more indurated, tending to be fissile.						
strongly weathered shaly bedrock.					11·7 - 11·75m. Well layered, strongly weathered shale/siltstone.				H	7,28 ?	
		12			END OF HOLE 11·75m						

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
7 Dec 66 / Casing; Water level date; WC ▶ Water Cut	H — Humid	VS — Very Soft	Ls — Loose	VL — Very Loose	OPEN TUBE: A Shoe, D Shoe
	D — Damp	S — Soft	MC — Moderately Compact	L — Loose	SEALED TUBE WITH NUMBER
	M — Moist	F — Firm	C — Compact	MD — Medium Dense	STANDARD PENETRATION TESTS: 1,2,3,4 Total blows for 0·3m (in 0·1m increments)
	W — Wet	St — Stiff	VC — Very Compact	D — Dense	
	S — Saturated	VSt — Very Stiff		VD — Very Dense	
	LL — Liquid Limit	H — Hard			
	PL — Plastic Limit	C 50mm Diameter CONE TEST eg 1 0 3 4 3			

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE PERCUSSION	LOGGED BY X.P.S.
CIRCULATION AIR	DATE 19-20.7.79
START 19.7.79	TRACED BY D.W.W.
FINISH 20.7.79	DATE 27/11/79
SHEET 2 OF 2	

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MF 58

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DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.

LOCATION OR CO-ORDS: SMARTS ROAD, TEA TREE PLAZA

SEC. 842 HD. YATALA

EL Surface 130.278 m

EL ref. point

Datum A.H.D.

HOLE NO. GS I N

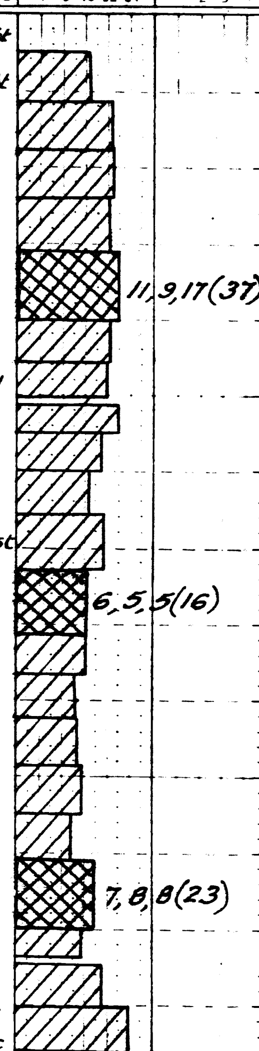
UNIT/STATE NO 6628320EW11145

SERIAL NO 301/80

FOLDER NO 089083

GEOLOGICAL DESCRIPTION OF CORE	DEPTH m	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME (Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966)	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compact Density
TOPSOIL.		OL	Black brown			H	St
		CL/ML	Cream – pale brown mottled calc. Silty clay / clayey silt.			H	St
	1	GM/GC	Iron stained calcreted gravels with sand and silt in clayey matrix.				
Completely weathered shaly bedrock.	2	CL/CH	1.9 - 4.1 m. Cream white gritty (< 2%) silty (< 5%) clay. Medium plasticity. Fragments of more indurated finely layered claystone. Orange brown mottling at depth.			H	H
	3						VSt
	4		4.2 - 6.5 m. Orange brown mottled cream clay – medium plasticity. Finely layered at depth.				
	5						
	6						
Strongly weathered siltstone/shale.		ML	Finely layered silty claystone with 1mm FeO joints, khaki brown.			H	H Vc
	7		END OF HOLE 6.85 m.				

FIELD TEST DATA — BLOWS PER 30 cm (4 8 16 32 64); SOIL TEST PENETROMETER Units * (1 2 3 4)



WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
7 Dec '66 Casing; Water level (date); WC Water Cut	H – Humid	VS – Very Soft	Ls – Loose	VL – Very Loose	OPEN TUBE
	D – Damp	S – Soft	MC – Moderately Compact	L – Loose	A Shoe
	M – Moist	F – Firm	C – Compact	MD – Medium Dense	D Shoe
	W – Wet	St – Stiff	VC – Very Compact	D – Dense	SEALED TUBE WITH NUMBER
	S – Saturated	VSt – Very Stiff		VD – Very Dense	STANDARD PENETRATION TESTS
	LL – Liquid Limit	H – Hard			Total blows for 0.3m (in 0.1m increments)
	PL – Plastic Limit	50mm Diameter CONE TEST eg 1,2,3,4			

* Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only

DRILL TYPE CABLE TOOL	LOGGED BY X.P.S.
CIRCULATION AIR	DATE 18-19 7.79
START 18.7.79	TRACED BY D.W.W.
FINISH 19.7.79	DATE 27/11/79

SHEET 1 OF 1

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MF 58

C-38

DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: GRAND JUNCTION RD NORTH. HOLDEN HILL

SEC. 826 HD. YATALA

EL Surface 109·532 m

EL ref. point

Datum A.H.D.

HOLE NO. GS 2 N

UNIT/STATE NO 662832 OEW11145

SERIAL NO: 301/80

FOLDER NO 089085

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia / DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compact Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 4)
TOPSOIL			OL							
CLAY SILT	1		ML / CL	Pale cream grading to brown, calcareous clayey silt.			H	Vst		
									2,3,2 (7)	
BEDROCK (CW)	2		ML / CL	Weathered bedrock (cw). Siltstone.			H	H		
BEDROCK (SW)	3			Slightly weathered ochre coloured siltstone.						

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Casing 7 Dec. 166	H - Humid	VS - Very Soft	Ls - Loose	VL - Very Loose	OPEN TUBE
Water level (date)	D - Damp	S - Soft	MC - Moderately Compact	L - Loose	A Shoe
WC Water Cut	M - Moist	F - Firm	C Compact	MD - Medium Dense	D Shoe
	W Wet	St - Stiff	VC - Very Compact	D - Dense	SEALED TUBE WITH NUMBER (A 1 2 3 4 5)
	S Saturated	v St - Very Stiff		VD - Very Dense	STANDARD PENETRATION TESTS (S 1 2 3 4)
	LL Liquid Limit	H - Hard			Total blows for 0.3m (in 0.1m increments)
	PL Plastic Limit	C 50mm Diameter CONE TEST eg 10 3 4 5			

* Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only

DRILL TYPE C. TOOL	LOGGED BY S.R.B.
CIRCULATION	DATE 23·7·79
START	TRACED BY D.W.W.
FINISH	DATE 27/11/79

SHEET 1. OF 1

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MF 58

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DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT NORTHEAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.

LOCATION OR CO-ORDS GRAND JUNCTION RD. HOLDEN HILL

SEC 307 HD YATALA

EL Surface 108·195

EL ref point

Datum A.H.D.

HOLE NO. GS 2 5.

UNIT/STATE NO 662832DEW11144

SERIAL NO 301/80

FOLDER NO 089086

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, USBR Earth Manual 2nd Edition 1966	WATER LEVEL Casing	MOISTURE CONTENT	Consistency Compct Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 4)
TOPSOIL.				OL						
CALCRETE.		1			Offwhite, rubbly calcrete. Ferruginized 0·77 – 0·9 m. Soft bands 1·5 – 1·8 m.			H H		
(CW) BEDROCK.		2		ML/CL	Dark red to orange, slightly calcareous, mottled white and red silty clay. Some laminations present.					
		3								
		4							11,7,7 (25)	
		5								
		6							7,7,6 (20)	
		7			End of Hole 7·9m.					
		8								

WATER LEVELS: 7 Dec '66; Casing; Water level (date); WC Water Cut

MOISTURE CONTENT: H – Humid; D – Damp; M – Moist; W – Wet; S – Saturated; LL – Liquid Limit; PL – Plastic Limit

CONSISTENCY (Clays): VS – Very Soft; S – Soft; F – Firm; St – Stiff; VSt – Very Stiff; H – Hard

50mm Diameter CONE TEST eg 10 3 4 3

COMPACTNESS (Silts): Ls – Loose; MC – Moderately Compact; C – Compact; VC – Very Compact

RELATIVE DENSITY (Sands): VL – Very Loose; L – Loose; MD – Medium Dense; D – Dense; VD – Very Dense

TYPE OF SAMPLE: OPEN TUBE – A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TEST (1 2 3 4); Total blows for 0.3m (for 0.1m increments)

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE CABLE TOOL	LOGGED BY S.R.B.
CIRCULATION	DATE 24·7·79
START	TRACED BY D.W.W.
FINISH	DATE 27/11/79
SHEET 1 OF 1	

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DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: **NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.**

LOCATION OR CO-ORDS: *LYONS RD HOLDEN HILL*

SEC. *2058* HD. *YATALA*

EL Surface *79·622 m* EL ref point Datum *A.H.D.*

HOLE NO. *GS3 N.*
UNIT/STATE NO *6628390EW11143*
SERIAL NO: *301/80*
FOLDER NO. *089087*

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL	MOISTURE CONTENT	Consistency Compct Denst	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 4)
SILT - TOPSOIL.				ML/OL	*Dk. brown gravelly clay-silt, abundant organic matter. Becoming sandier with depth.*		D	MC		
SANDY CLAY.		1		CL	*Mottled orange-white sandy-silty clay (low plasticity). Calcareous.*		D	St-VSt	9 (2,4,3)	
		2								
		3				W.L. ▼				
SAND, gravelly.		4		SP/SC	*Orange-red mottled med. grained sand with gravels consisting of quartz and ferruginous pebbles, clayey sand 4·5 - 4·8m.*				19 (2,8,9)	
CLAY, silty.		5		ML/MC	*Orange, red-white mottled silty clay with layers of hard ferruginous angular sandstone (contains seepages of groundwater).*					
		6				WC →			14 (4,4,6)	
		7				WC →				
BASEMENT (H-MW).		8			*Harder ferruginous sondstone END OF HOLE 7·95m.*					

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
7 Dec. '66 Casing; Water level water; WC Water Cut	H — Humid; D — Damp; M — Moist; W — Wet; S — Saturated; LL — Liquid Limit; PL — Plastic Limit	VS — Very Soft; S — Soft; F — Firm; St — Stiff; V St — Very Stiff; H — Hard	Ls — Loose; MC — Moderately Compact; C — Compact; VC — Very Compact	VL — Very Loose; L — Loose; MD — Medium Dense; D — Dense; VD — very Dense	OPEN TUBE: A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (1 2 3 A); Total blows for 0.3m (on 0.1m increments)

50mm Diameter CONE TEST eg 10 3 4 3

* Penetrometer value X100 = uncontined compressive strength in kPa for clay soils only

DRILL TYPE *CABLE TOOL*	LOGGED BY *S.R.B.*
CIRCULATION	DATE *26·7·79*
START	TRACED BY *D.W.W.*
FINISH	DATE *27/11/79*

SHEET *1* OF *1*

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DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: **NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.**

LOCATION OR CO-ORDS: LYONS RD, DERNANCOURT

SEC. 510 HD YATALA

EL Surface 78.679m

EL ref. point Datum A.H.D.

HOLE NO. GS 3 S.

UNIT/STATE NO: 6628390 EW11142

SERIAL NO: 301/80

FOLDER NO. 089088

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL Casing	MOISTURE CONTENT	Consistency Compct Densy	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3)
FILL				GP	Silty gravel with organic matter & some clay. Fawn in colour.		M	St		
SILT		1		ML/OL	Dk. brown calcareous clayey silt with abundant organic matter. Sandy towards base.		M	Ls		
CLAY, silty.		2		ML/CL	Orange grey mottled sandy silt/clay with white harder calcareous zones.		M	St	1.2.3 (6)	
GRAVEL				GC	Rounded, coarse ferruginous & qutz. pebbles, clayey.					
CLAY, sandy.		3		CL	Mottled orange-white sandy silty clay.		M	St		
SAND, Gravelly.		4		SC/GC	Off-white clayey-gravelly sand. Mottled orange-yellow. Ferruginous gravel at top.		M		3.3.5 (11)	
		5			White-cream (CW)					
		6					M	Vs	2.4.4 (10)	
		7			6.7m. Siltstone pans W.L. ▼	▼				
		8								
BEDROCK. (CW).		9		ML	Mottled grey-brown silt with gravelly lenses (5mm. thick)		M	VSt		
					Brown ochre at base		D	H	4.6.9 (19)	
		10			END OF HOLE 9.95m.					

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE	* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only
Water level (date) 7 Dec. '66; Casing; WC ▶ Water Cut	H — Humid; D — Damp; M — Moist; W — Wet; S — Saturated; LL — Liquid Limit; PL — Plastic Limit	VS — Very Soft; S — Soft; F — Firm; St — Stiff; VSt — Very Stiff; H — Hard	Ls — Loose; MC — Moderately Compact; C — Compact; VC — Very Compact	VL — Very Loose; L — Loose; MD — Medium Dense; D — Dense; VD — Very Dense	OPEN TUBE: A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (x 2 3 4); Total blows for 0.3m (in 0.1m increments)	

50mm Diameter CONE TEST eg 10 3 4 3

DRILL TYPE	LOGGED BY S.R.B.
CIRCULATION	DATE
START	TRACED BY D.W.W.
FINISH	DATE 27/11/79
SHEET 1 OF 1	

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DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: **NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.**

LOCATION OR CO-ORDS: *DARLEY ROAD SOUTH*
SEC. *Pt 333* HD *ADELAIDE*

EL Surface 56·963m
EL ref point
Datum A.H.D.

HOLE NO. *GS4*
UNIT/STATE NO *6628390EW11139*
SERIAL NO: *301/80*
FOLDER NO *089089*

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL Casing	MOISTURE CONTENT	Consistency Compct Densy	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3)
TOPSOIL				CL	*CLAY SOIL :- Red, brown with organic matter. Low silt and fine sand content.*		D	V St		
ALLUVIAL CLAY-SILT		1		ML/CL	*SILT SOIL :- Light brown and highly calcareous. Low fine sand content.*		H	V St		
		2		CL/ML	*SILTY CLAY - Light brown with low plasticity. Silts and fine sand increase with depth. Pebbly (Ave 2-4mm.), calcareous from 3·3m.*		D	V St	C 3,4,3 (10)	
		3							4·3·4 (11)	
		4					H			
		5	MIC	SC/ML	*SILTY SAND :- Light brown, slightly micaceous with fine sand.*		H	MC MD	4·5·5 (14)	
MICACEOUS SILT-CLAY *completely weathered bedrock*		6	MIC MIC	ML/SC	*SANDY SILT :- Mottled grey - light brown with increasing silt and mica content.*		H	MC VSt	C 3,3,3 (9)	
				ML	*SILT :- Mottled grey brown micaceous silt with quartzite pebbles (30 x 30 x 5 mm).*		M	MC	S	
BEDROCK (Quartzite) below 7m. Unable to penetrate.		7			*END OF HOLE 7·0m. In weathered bedrock (?). Further open hole tube sampling not possible.*					

C 50mm. Ø Cone Test eg. 3,4,3 (10)

S Cone Test : no penetration

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date) 7 Dec 166 Casing; WC Water Cut	H Humid; D Damp; M Moist; W Wet; S Saturated; LL Liquid Limit; PL Plastic Limit	VS Very Soft; S Soft; F Firm; St Stiff; V St Very Stiff; H Hard	Ls Loose; MC Moderately Compact; C Compact; VC Very Compact	VL Very Loose; L Loose; MD Medium Dense; D Dense; VD Very Dense	OPEN TUBE A Shoe; D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (1 2 3 4); Total blows for 0.3m (or 0.1m increments)

C 50mm Diameter CONE TEST eg 10 3 4 3

* Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY *J.C.B.*
CIRCULATION	DATE
START	TRACED BY *M.R.*
FINISH	DATE *27/11/79*
SHEET	OF

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C-43

PROJECT: **NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.**

LOCATION OR CO-ORDS: O.G. ROAD, KLEMZIG.

SEC. 234 HD YATALA

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA

ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

EL Surface 43·210m

EL ref. point

Datum A.H.D.

HOLE NO. GS 5 E

UNIT/STATE NO: 6628390 EW 11136

SERIAL NO: 301/80

FOLDER NO. 089090

GEOLOGICAL DESCRIPTION OF CORE	DEPTH m	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL	MOISTURE CONTENT	Consistency Compct Densy	FIELD TEST DATA BLOWS PER 30 cm (4 8 16 32 64)	SOIL TEST PENETROMETER Units * (1 2 3 –)
TOPSOIL	0	OL/CL	Dark brown silty soil.					> 5
SILT	1	ML (CL)	Red brown silt with minor clay content becoming brown and micaceous.					
	2						1,1,1(3)	
	3				H	Mc		
							3,3,3(9)	
	4				H	L		
SAND	5	SP	Brown fine-medium sand becoming coarse below 6·0m.					
		SM	Silty					
	6						3,4,4(11)	
		SM	Silty					
GRAVEL	7	GP/GM	Well rounded quartz pebbles up to maximum length 200 mm.	W.L. 4·9·79				
	8						4,3,3 (10)	
COARSE GRAVEL	9							
	10							

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
7 Dec '66 Casing	H – Humid	VS – Very Soft	Ls – Loose	VL – Very Loose	OPEN TUBE .... A Shoe
Water level (date)	D – Damp	S – Soft	MC – Moderately Compact	L – Loose	.... D Shoe
WC ▶ Water Cut	M – Moist	F – Firm	C – Compact	MD – Medium Dense	SEALED TUBE WITH NUMBER A 1 2 3 4 5
	W – Wet	St – Stiff	VC – Very Compact	D – Dense	STANDARD PENETRATION TESTS 2 3 4 Total blows for 0·3m (in 0·1m increments)
	S – Saturated	V St – Very Stiff		VD – Very Dense	
	LL – Liquid Limit	H – Hard			
	PL – Plastic Limit	50mm Diameter CONE TEST eg 10 3 4 3			

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY J.C. BEAL
CIRCULATION	DATE
START	TRACED BY D.W.W.
FINISH	DATE 27/11/79
	SHEET 1 OF 2

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MF 58

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DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS O.G. ROAD, KLEMZIG

SEC 234 HD YATALA

EL Surface 43.210m

EL ref. point Datum A.H.D.

HOLE NO. GS5 E

UNIT/STATE NO. 6628390 EW111136

SERIAL NO. 301/80

FOLDER NO. 089090

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia / DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL Casing	MOISTURE CONTENT Consistency Compact Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 –)
GRAVEL.	10		GP					
	11							
	12							
SILT AND GRAVEL.			GC / SM / ML	Green - brown silt with gravel.				
SILT. Completely weathered Blanche Point Marl.	13		ML	Fossiliferous marly alternates in hard and soft bands, (every 100 - 300 mm).				
	14							
	15							
	16							
END OF HOLE 16.35m.								

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE	* Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only
7 Dec '66 Casing; Water level (date); WC ▶ Water Cut	H Humid; D Damp; M Moist; W Wet; S Saturated; LL Liquid Limit; PL Plastic Limit	VS Very Soft; S Soft; F Firm; St Stiff; VSt Very Stiff; H Hard	VL Very Loose; L Loose; MC Moderately Compact; C Compact; VC Very Compact	VL Very Loose; L Loose; MD Medium Dense; D Dense; VD Very Dense	OPEN TUBE: A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (1 2 3 4); Total blows for 0.3m (or 0.1m increments)	

50mm Diameter CORE TEST eg. 10 9 4 2

DRILL TYPE	LOGGED BY J.C. BEAL
CIRCULATION	DATE
START	TRACED BY D.W.W.
FINISH	DATE 27/11/79

SHEET 2 OF 2

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MF 58

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DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: O.G. ROAD

SEC. PT 490 HD. YATALA

EL Surface 43·330m. EL ref. point Datum A.H.D.

HOLE NO. GS 5 W
UNIT/STATE NO 6628390 EW 11135
SERIAL NO: 301/80
FOLDER NO. 089091

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R Earth Manual 2nd Edition 1966	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compct Densty	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 4)
TOPSOIL				OL	Dark brown						
SILT		1		ML	Brown silt				C		
		2						H	MC / C	5,4,3 (12)	
		3									
		4								4,5,5 (14)	
SAND, fine				SP	Brown, fine sand, some mica. Minor silt content.			D G	L – MD		
		5									
		6		SP/GP	Gravel, sub-rounded to sub-angular; mainly quartz up to 50mm.						
		7		(GM)						3,4,4 (11)	
		8		CL/ML	Silty Clay						
		9		GP							
		10									

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date) 7 Dec 66; Casing; WC Water Cut	H — Humid; D — Damp; M — Moist; W — Wet; S — Saturated; LL — Liquid Limit; PL — Plastic Limit	VS — Very Soft; S — Soft; F — Firm; St — Stiff; VSt — Very Stiff; H — Hard	Ls — Loose; MC — Moderately Compact; C — Compact; VC — Very Compact	VL — Very Loose; L — Loose; MD — Medium Dense; D — Dense; VL — Very Dense	OPEN TUBE: A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (1 2 3 4); Total blows for 0.3m (or 0.1m increments)

50mm Dameter CONE TEST eg 10 3 4 3

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY J.C. BEAL
CIRCULATION	DATE
START	TRACED BY D.W.W.
FINISH	DATE 27/11/79

SHEET 1 OF 2

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DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.

LOCATION OR CO-ORDS: O.G. ROAD

SEC: PT 490 HD: YATALA

EL Surface: 43.330m. EL ref. point: Datum: A.H.D.

HOLE NO. GS 5 W
UNIT/STATE NO: 6628390EW11135
SERIAL NO: 301/80
FOLDER NO: 089091

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia / DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME (Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966)	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compct Densy	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3)
	10		GP							
	11									
GRAVEL, silty.	12		GP/GM							
	13									
SILT. Completely weathered Blanche Point Marl.	14		ML/SM	Marl fossiliferous; changes from green to brown at 15m. Typically alternates within 150mm. between hard grey rock and soft green silt.			M	F		
	15						M	S		
	16						M	VS		
	17								40 blows for 1cm.	
END OF HOLE 17.4m.										

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date): 7 Dec. '66; Casing; WC: Water Cut	H Humid; D Damp; M Moist; W Wet; S Saturated; LL Liquid Limit; PL Plastic Limit	VS Very Soft; S Soft; F Firm; St Stiff; VSt Very Stiff; H Hard	L Loose; MC Moderately Compact; C Compact; VC Very Compact	VL Very Loose; L Loose; MD Medium Dense; D Dense; VD Very Dense	OPEN TUBE: A Shoe; D Shoe; SEALED TUBE WITH NUMBER (1 2 3 4 5); STANDARD PENETRATION TEST (1 2 3 4); Total blows for 0.3m (in 0.1m increments)

50mm Diameter CONE TEST eg. 10 3 4

* Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY: B.E. J.C.B.
CIRCULATION	DATE
START	TRACED BY: D.W.W.
FINISH	DATE: 27/11/79

SHEET 2 OF 2

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DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT **NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.**

LOCATION OR CO-ORDS: *LOWER PORTRUSH RD. (EAST)*

SEC *284* HD *ADELAIDE*

EL Surface *39.830m.*

EL ref. point Datum *A.H.O.*

HOLE NO. *GS 6 E*
UNIT/STATE NO *6628390EW11132*
SERIAL NO *301/80*
FOLDER NO *089092*

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia / DEPTH	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION — GROUP NAME — Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL Casing	MOISTURE CONTENT	Consistency Compact Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3)
FILL				*FILL:- Brown silty clay with 30-40% pebbles (< 1 cm).*					
	1			*FILL:- Mottled dark and light brown clayey silt with rubbish (roadmetal, bitumen, and concrete ranging up to 3 cms.)*		D		2,2,1(5)	
	2			*FILL:- Red brick and concrete with dark brown silty sand in interstices.*					
	3			*FILL:- Light brown silty fine-medium sand with 20-30% pebbles and bitumen rubbish (up to 3 cm.).*				>>4.5	
	4							4,7,6(17)	
				FILL:- As above with no rubbish. Much siltier.					
	5			*FILL:- Light brown clayey and sandy silt with 20-30% angular and unsorted gravel fraction (< 3 cm)*		M			
				FILL:- Dark brown clayey silt with 30% gravel fraction as above. Micaceous.				1,1,1(3)	
	6			*FILL:- Dark grey to black silty fine sand. Micaceous.*					
ALLUVIUM			ML	*SILT:- Yellow-green containing undecomposed plant remains. Very soft, micaceous with occasional gravel 3-5 cms.* WL		W	L		
	7			*SAND:- Grey brown, silty and fine.*				ZERO	
	8			*SILT:- Dark grey and fine sandy*		S			
				SILT:- As above with layers of medium coarse gravel.					
GRAVEL	9			*GRAVEL:- Medium coarse sandy sub-rounded gravels.*					
	10								

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date) 7 Dec '66; Casing; WC Water Cut	H — Humid	VS — Very Soft	Ls — Loose	VL — Very Loose	OPEN TUBE: A Shoe, D Shoe
	D — Damp	S — Soft	MC — Moderately Compact	L — Loose	SEALED TUBE WITH NUMBER (A 1 2 3 4 5)
	M — Moist	F — Firm	C — Compact	MD — Medium Dense	STANDARD PENETRATION TESTS: 9 12 34; Total blows for 0.3m (in 0.1m increments)
	W — Wet	St — Stiff	VC — Very Compact	D — Dense	
	S — Saturated	V St — Very Stiff		VD — Very Dense	
	LL — Liquid Limit	H — Hard			
	PL — Plastic Limit	50mm Diameter CONE TEST eg 10343			

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY *B.A.E.*
CIRCULATION	DATE
START	TRACED BY *D.W.W.*
FINISH	DATE *10.9.79*

SHEET *1.* OF *2*

1643

MF 58

C-18

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.

LOCATION OR CO-ORDS: LOWER PORTRUSH ROAD (EAST)

SEC 284 HD ADELAIDE

EL Surface 39·830m. EL ref. point Datum A.H.D.

HOLE NO. GS 6 E
UNIT/STATE NO 6628390 EW 11132
SERIAL NO: 301/80
FOLDER NO 089092

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia / DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL Casing	MOISTURE CONTENT	Consistency Compct Densty	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3)
	10								
				GRAVEL:- Medium - coarse sub-rounded gravels.					
	11								
	12					S			
	13								
	14								
				GRAVEL:- Silty and sandy.					
	15								
BEDROCK			CW	COMPLETELY WEATHERED BEDROCK:- Green and yellow mottled silt with black weathered glauconite.					
	16		CW (VW)	COMPLETELY WEATHERED BEDROCK. Black sandy silt containing brittle bedrock with shell casts and molds.		M			≫5
	17								
			CW (VW)	COMPLETELY WEATHERED BEDROCK. As above with some unweathered shells.					
	18								
	19		W	HARD BEDROCK.					
END OF HOLE 19·2m.									
	20								

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date) 7 Dec '66 Casing; WC Water Cut	H — Humid; D — Damp; M — Moist; W — Wet; S — Saturated; LL — Liquid Limit; PL — Plastic Limit	VS — Very Soft; S — Soft; F — Firm; St — Stiff; V St — Very Stiff; H — Hard	Ls — Loose; MC — Moderately Compact; C — Compact; VC — Very Compact	VL Very Loose; L Loose; MD Medium Dense; D Dense; VD Very Dense	OPEN TUBE: A Shoe; D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (S 1 2 3 4); Total blows for 0.3m (in 0.1m increments)

50mm Diameter CONE TEST eg 10 3 4 3

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY B.A.E.
CIRCULATION	DATE
START	TRACED BY D.W.W.
FINISH	DATE 10·9·79

SHEET 2 OF 2

1643

MF 58

C-49

PROJECT: **NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.**

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

HOLE NO. GS 6 W
UNIT/STATE NO. 6628390 EW11131
SERIAL NO: 301/80
FOLDER NO. 089093

LOCATION OR CO-ORDS: LOWER PORTRUSH ROAD (WEST)
EL Surface 41·060m.
SEC. PT 283 HD. ADELAIDE
EL ref. point
Datum A.H.D.

Geological description of core	Depth (m)	Soil description (Group name, Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966)	Moisture content	Consistency / Compact density	Field test data (blows per 30 cm)
FILL	0 – ~0.5	FILL:- Clayey and silty fine to medium sand with about 30% rubbish (bitumen and concrete) up to 1 cm.	M		
	~0.5 – ~0.7	FILL:- Light brown silty fine sand.	D		
	~0.7 – 2	FILL:- Loose concrete with some bitumen, brick and sand.			4,3,3(10)
	2 – 4.1	FILL:- Concrete and brick with a brown sandy silt in the interstices.	H		
	4.1 – 5.8	FILL:- Loose red brick.			1,1,4(6)
	5.8 – 6.3	FILL:- Red brick in a silty and fine sand clay.			
	6.3 – 6.7	FILL – WOOD:- With fine sand in the interstices.			
	6.7 – 7.9	FILL:- Grey fine - medium sub-angular sand. 7.6 - 7.7 m. A layer of grey brown slightly sandy silt.	M	L	2,3,3(8)
	7.9 – 8.3	FILL:- About 40% wood, brick and charcoal in fine - medium sand.			
GRAVEL	8.3 – 10	GRAVEL:- Coarse sandy rounded quartz gravel up to 10 cm	S		

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
7 Dec. '66 / Casing	H Humid	VS Very Soft	Ls Loose	VL Very Loose	OPEN TUBE: A Shoe, D Shoe
Water level (date)	D Damp	S Soft	MC Moderately Compact	L Loose	SEALED TUBE WITH NUMBER
WC Water Cut	M Moist	F Firm	C Compact	MD Medium Dense	STANDARD PENETRATION TESTS
	W Wet	St Stiff	VC Very Compact	D Dense	Total blows for 0·3m (in 0·1m increments)
	S Saturated	V St Very Stiff		VD Very Dense	
	LL Liquid Limit	H Hard			
	PL Plastic Limit				

50mm Diameter CONE TEST eg. 10343

✱ Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY B.A.E.
CIRCULATION	DATE
START	TRACED BY D.W.W.
FINISH	DATE 27/11/79

SHEET 1 OF 2

1643

MF 58

C-50

DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: LOWER PORTRUSH ROAD (WEST)

SEC PT 283 HD ADELAIDE

EL Surface 41.060m

EL ref. point

Datum A.H.D.

HOLE NO. GS 6 W

UNIT/STATE NO 6628390 EW11131

SERIAL NO: 301/80

FOLDER NO 089093

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia / DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME (Unified Soil Classification, USBR Earth Manual 2nd Edition 1966)	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compct Densy	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3)
	11									
				GRAVEL :- Coarse gravel.						
	12									
	13									
	14									
	15			GRAVEL :- Very silty and fine sandy.						
	16									
BEDROCK			CW	COMPLETELY WEATHERED BEDROCK. Brown and green mottled silt with black weathered glauconite.						
	17		CW (VW)	COMPLETELY WEATHERED BEDROCK. Black sandy silt containing brittle bedrock with shell casts and molds.						
	18									
			CW (VW)	COMPLETELY WEATHERED BEDROCK. As above. with some unweathered shells.						
	19			HARD BEDROCK.						
			VW	END OF HOLE 19.2m						
	20									

WATER LEVELS: 7 Dec 166 (date) — Water level — Casing — WC Water Cut

MOISTURE CONTENT: H - Humid; D - Damp; M - Moist; W - Wet; S - Saturated; LL - Liquid Limit; PL - Plastic Limit

CONSISTENCY (Clays): VS - Very Soft; S - Soft; F - Firm; St - Stiff; V St - Very Stiff; H - Hard

COMPACTNESS (Silts): Ls - Loose; MC - Moderately Compact; C - Compact; VC - Very Compact

RELATIVE DENSITY (Sands): VL - Very Loose; L - Loose; MD - Medium Dense; D - Dense; VD - Very Dense

50mm Diameter CONE TEST eg 10 3 4 3

TYPE OF SAMPLE: OPEN TUBE — A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (S 1 2 3 4); Total blows for 0.3m (or 0.1m increments)

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY B.A.E.
CIRCULATION	DATE
START	TRACED BY D.W.W.
FINISH	DATE 27/11/79

SHEET 2 OF 2

1643

MF 58

C-51

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: STEPHEN TER. WALKERVILLE

SEC 475 HD YATALA

EL Surface 35·136m. EL ref point Datum A.H.D.

HOLE NO. G S 7
UNIT/STATE NO 662842a EW11121
SERIAL NO: 301/80
FOLDER NO. 089094

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME (Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966)	WATER LEVEL Casing	MOISTURE CONTENT	Consistency Compct Densy	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3)
ORGANIC TOPSOIL				OL I SM	Dark brown soil					
SILT AND SAND		1		ML (SM)	Brown silt with minor fine sand and organic material		Dry	MD	10 (4,3,3)	
SAND AND SILT		2		SM	Pale brown fine sand with minor silt content.			MD		
SAND		3		SP	Loose, fine, dry sand.			VL	23 (9,7,7)	
SAND AND GRAVEL		4		GP I SP	Pale brown fine gravel / sand, grading into mainly coarse dry - damp Sand loose 5·7 - 7·3 m.				10 (3,4,3)	
SAND		5								
		6								
		7			Moderately dense.			MD		
GRAVEL		8		GP I (SP)	Grey brown loose gravel. Coarse sand. Rounded quartz pebbles, up to 5 mm.					
		9								

WATER LEVELS: 7 Dec. 166 Casing; Water level (date); WC Water Cut

MOISTURE CONTENT: H – Humid; D – Damp; M – Moist; W – Wet; S – Saturated; LL – Liquid Limit; PL – Plastic Limit

CONSISTENCY (Clays): VS – Very Soft; S – Soft; F – Firm; St – Stiff; VSt – Very Stiff; H – Hard

50mm Diameter CONE TEST eg 10 3 4

COMPACTNESS (Silts): Ls – Loose; MC – Moderately Compact; C – Compact; VC – Very Compact

RELATIVE DENSITY (Sands): VL – Very Loose; L – Loose; MD – Medium Dense; D – Dense; VD – Very Dense

TYPE OF SAMPLE: OPEN TUBE; A Shoe; D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS; Total blows for 0.3m (in 0.1m increments)

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY J.C.B.
CIRCULATION	DATE
START	TRACED BY E.C.
FINISH	DATE 22/10/79

SHEET 1 OF 2

1643

MF 58

C-52

DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: STEPHEN TER. WALKERVILLE

SEC. 475 HD YATALA

EL Surface 35·136m. EL ref. point Datum A.N.D.

HOLE NO. GS7
UNIT/STATE NO. 662842a EW11121
SERIAL NO. 301/80
FOLDER NO. 089094

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compct Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	SOIL TEST PENETROMETER Units * (1 2 3 4)
SAND.		11			10-12m. Micaceous red-brown coloured medium-coarse sand with up to 10% gravel. W.L. ▼						
		12			12-13·6m. Light brown silt and sand with about 10% gravel up to 40mm.						
GRAVEL		13									
		14			Medium-coarse gravel with a minor sand and silt content. Cut water: S.W.L. 11·13m. and rising very slowly. Large gravel. (Up to 20mm).						
		15									
BLANCHE POINT MARL		16		CWB	Yellow brown with light green and black speckled silt, (completely weathered Blanche Point Marl).						
End of Hole 17·35m.		17									

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE	* Penetrometer value X100 ≈ uncontined compressive strength in kPa for clay soils only
Water level (date) 7 Dec. '66; Casing; WC ▶ Water Cut	H - Humid; D - Damp; M - Moist; W - Wet; S - Saturated; LL - Liquid Limit; PL - Plastic Limit	VS - Very Soft; S - Soft; F - Firm; St - Stiff; VSt - Very Stiff; H - Hard	Ls - Loose; MC - Moderately Compact; C - Compact; VC - Very Compact	VL - Very Loose; L - Loose; MD - Medium Dense; D - Dense; VD - Very Dense	OPEN TUBE: A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (2 3 4); Total blows for 0.3m (or 0.1m increments)	

50mm Diameter CONE TEST eg 10·3·4·3

DRILL TYPE	LOGGED BY J.C.B.
CIRCULATION	DATE
START	TRACED BY E.C.
FINISH	DATE 22/10/79

SHEET 2 OF 2

1643

MF 58

C-53

DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: RESERVOIR ROAD, MOODBURY

SEC. Pt 837 HD YATALA

EL Surface 116.430m.. EL ref point Datum A.H.D.

HOLE NO. G S 8 E
UNIT/STATE NO: 6628320 EW/11147
SERIAL NO. 301/80
FOLDER NO. 089095

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, USBR Earth Manual 2nd Edition 1966	WATER LEVEL Casing	MOISTURE CONTENT	Consistency Compct Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 4)
TOPSOIL				CL	Organic red-brown soil		D	St		
				CH	Black earth.					
		1		CL-ML	White, calcareous, clayey silt.					
CLAY-SILT				CL-ML	Brown, silty clay. Mottled brown-white, calcareous.		H	VSt/H		>5
		2							9 (3,3,3)	
CLAY		3		CL	Pale-brown fissured clay.		H/D	VSt		>5
									11 (3,4,4)	
CLAY-SILT		4		CL-ML	Pale brown-cream low plastic clay with minor silt content increasing below 4.6 m to become a white siltstone with minor clay content					
SILT				ML			Dry			
		5		GP	Ironstone nodule.					
				ML						
		6							13 (3,4,6)	
SILT becoming SILTSTONE				ML-GP						
End of Hole 6.85m BEDROCK Completely weathered siltstone.									6.75-6.85 m. NO RECOVERY (30 Blows).	

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date) 7 Dec. '66 Casing	H - Humid	VS - Very Soft	Ls - Loose	VL Very Loose	OPEN TUBE
WC ▶ Water Cut	D - Damp	S - Soft	MC - Moderately Compact	L - Loose	A Shoe
	M - Moist	F - Firm	C - Compact	MD Medium Dense	D Shoe
	W - Wet	St - Stiff	VC - Very Compact	D - Dense	SEALED TUBE WITH NUMBER (A 1 2 3 4 5)
	S - Saturated	VSt - Very Stiff		VD - Very Dense	STANDARD PENETRATION TESTS (1 2 3 4)
	LL - Liquid Limit	H - Hard			Total blows for 0.3m (or 0.1m increments)
	PL - Plastic Limit	C 50mm Diameter CONE TEST eg 10 3 4 7			

* Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY J.C.Beal
CIRCULATION	DATE
START	TRACED BY E.C.
FINISH	DATE 22/10/79

SHEET 1 OF 1

1643

MF 58

C-54

DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: RESERVOIR ROAD, MOODBURY

SEC. 838 HD. YATALA

EL Surface 116·060m. EL ref. point Datum A.H.D.

HOLE NO. G58 W
UNIT/STATE NO: 6628320 EW11146
SERIAL NO: 301/80
FOLDER NO 089096

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R Earth Manual 2nd Edition 1966	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compct Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (2 3 4)
TOPSOIL				CH	Black earth.						
"B" horizon		1		CL-M	Calcareous silt 'B' Horizon with black earth.						
CLAY				CL-CH	Mottled grey-brown clay.					8 (3,3,2)	
		2									
		3									
		4								7 (2,3,2)	
CLAY - SILT		5		ML-CL	Mottled cream-red silt/clay with ironstone nodules.					32 (5,12,15)	
		6									
		7								48 (9,5,4)	
End of Hole 8.7m.		8			Ironstone nodules make further penetration by tube impossible. 54 blows for 1st 30 cm.					> 54	

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level (date) 7 Dec '66; Casing; WC Water Cut	H - Humid; D - Damp; M - Moist; W - Wet; S - Saturated; LL - Liquid Limit; PL - Plastic Limit	VS - Very Soft; S - Soft; F - Firm; St - Stiff; VSt - Very Stiff; H - Hard	Ls - Loose; MC - Moderately Compact; C - Compact; VC - Very Compact	VL - Very Loose; L - Loose; MD - Medium Dense; D - Dense; VD - Very Dense	OPEN TUBE: A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (1 2 3 4); Total blows for 0.3m (no 0.1m increments)

50mm Diameter CONE TEST eg 10 3 4

* Penetrometer value X100 = uncontined compressive strength in kPa for clay soils only

DRILL TYPE	LOGGED BY J.C.Beo
CIRCULATION	DATE
START	TRACED BY E.C.
FINISH	DATE 22/10/7

SHEET 1 OF 1

1613

MF 58

C-55

DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA

ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT **NORTHEAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.**

LOCATION OR CO-ORDS: *Rose St. Gilberton*

SEC. *475* HD. *YATALA*

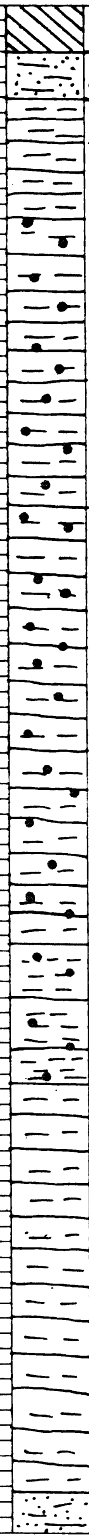
EL Surface *32·829 m*

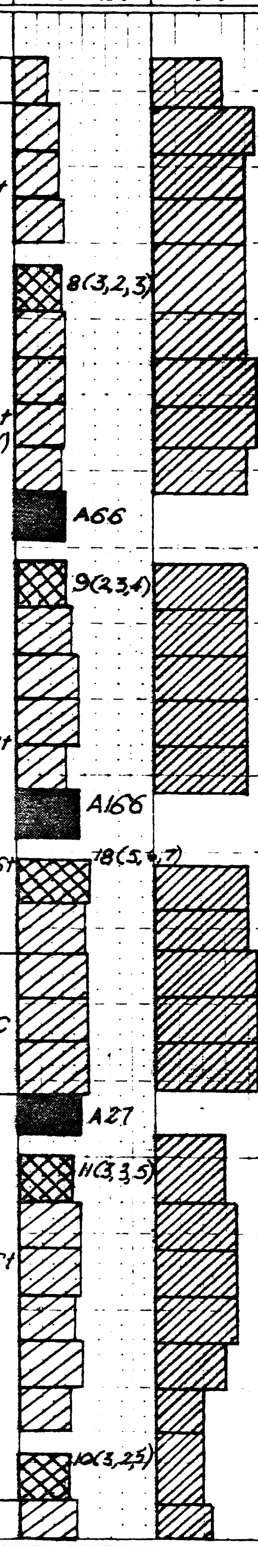
EL ref. point Datum *A. H. D.*

HOLE NO.	*T1*
UNIT/STATE NO:	*662842aEW11115*
SERIAL NO:	*301/80*
FOLDER NO	*089062*

GEOLOGICAL DESCRIPTION OF CORE	DEPTH m	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME (Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966)	MOISTURE CONTENT	Consistency / Compact Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)
FILL			Road foundations			
SAND, clayey.		SC	Dark brown clayey medium gravel sand.	M		
CLAY, silty.	1	ML/CL	Reddish brown and fawn mottled silty clay with hard brown calcareous concretions.		St	
	2			D		8(3,2,3)
	3				St (V)	A66
	4		Mottled grey and orange-brown silty clay as above.	D		9(2,3,4)
	5				St	A166
	6		Very hard calcareous concretions < 10cm. diameter.	D	VSt	18(5,[illegible],7)
SILT, clayey.		ML/CL	Mottled orange-brown clayey, silt with very fine mica with calcareous concretions as above.	D	C	
	7	CL/ML	Mottled fawn, orange-brown silty clay.	D		A27
	8		Mottled grey and orange		St	11(3,3,5)
	9			D		10(3,2,5)
CLAYEY SAND	10	SC	Mottled orange-grey, poorly sorted.			

Column headings also printed: HOLE Dia, GRAPHIC LOG, WATER LEVEL, Casing, SOIL TEST PENETROMETER Units * ([illegible])





WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
7 Dec '66; Casing; Water level (date); WC Water Cut	H — Humid	VS — Very Soft	Ls — Loose	VL — Very Loose	OPEN TUBE: A Shoe, D Shoe
	D — Damp	S — Soft	MC — Moderately Compact	L — Loose	SEALED TUBE WITH NUMBER A 1 2 3 4 5
	M — Moist	F — Firm	C — Compact	MD — Medium Dense	STANDARD PENETRATION TEST 1 2 3 4
	W — Wet	St — Stiff	VC — Very Compact	D — Dense	Total blows for 0.3m (in 0.1m increments)
	S — Saturated	V St — Very Stiff		VD — Very Dense	
	LL — Liquid Limit	H — Hard			
	PL — Plastic Limit				

C 50mm Diameter CONE TEST eg 10 2 4 3

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE	*C. TOOL*	LOGGED BY	*S.R.B.*
CIRCULATION		DATE	*28·8·79*
START		TRACED BY	*D.W.W.*
FINISH		DATE	*26/11/79*

SHEET *1* OF *2*

MF 58

1643

C-56

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.

LOCATION OR CO-ORDS. Rose St. Gilberton

SEC. 475 HD YATALA

EL Surface 32.829m. EL ref point Datum A.H.D.

HOLE NO. T1
UNIT/STATE NO 662842aEW11115
SERIAL NO 301/80
FOLDER NO 089062

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia / DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, USBR Earth Manual 2nd Edition 1966	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compct Denssy	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3 –)
SAND, gravelly.	10			Clayey - gravelly sand, oo.						
GRAVEL, clayey.			GC	Clayey and sandy gravel quartz and quartzite. 5cm. diameter; rounded.						
	11								C 14,(13,13,18)	
	12								19, 14, 13(46)	
	13									
	14								17, 18, 22(57)	
	15									
(CW) BEDROCK. Blanche Pt Marls.		T T T T T T		Grey-green, clayey, hardening at 15.9m.						
End of Hole 15.9m.										

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
Water level 7 Dec '66 (date) Casing; WC Water Cut	H – Humid; D – Damp; M – Moist; W – Wet; S – Saturated; LL – Liquid Limit; PL – Plastic Limit	VS – Very Soft; S – Soft; F – Firm; St – Stiff; VSt – Very Stiff; H – Hard	Ls – Loose; MC – Moderately Compact; C – Compact; VC – Very Compact	VL – Very Loose; L – Loose; MD – Medium Dense; D – Dense; VD – Very Dense	OPEN TUBE: A Shoe, D Shoe; SEALED TUBE WITH NUMBER [A 1 2 3 4 5]; STANDARD PENETRATION TESTS 1 2 3 4; Total blows for 0.3m (in 0.1m increments)

50mm Diameter CONE TEST eg 10 3 4 0

* Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only

DRILL TYPE C. TOOL | LOGGED BY S.R.B.
CIRCULATION | DATE
START | TRACED BY D.W.W.
FINISH | DATE 26/11/73

SHEET 2 OF 2

1643

MF 58

C-57

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.

LOCATION OR CO-ORDS: McKINNON PDE., NORTH ADELAIDE

SEC. Adj T.A. 978 HD. YATALA

EL Surface 32·483m.

EL ref. point

Datum A.H.D.

HOLE NO. T2

UNIT/STATE NO: 662842aEW11116

SERIAL NO: 301/80

FOLDER NO. 089063

GEOLOGICAL DESCRIPTION OF CORE	DEPTH m	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966	MOISTURE CONTENT	Consistency Compct Densy	FIELD TEST DATA BLOWS PER 30 cm (4 8 16 32 64) / SOIL TEST PENETROMETER Units * (1 2 3 4)
CLAY, silty.	0 – 2.25	ML/CL	Dark brown silty clay, friable, slightly sandy.	H	VSt	
			Silty layers	H	VSt	5,4,5 (14)
SILT, clayey.	2.25 – 5.1	ML/CL	Dark chocolate brown clayey silt; slightly sandy.		MC	A60
				H		5,4,6 (15)
					C	
SAND, silty.	5.1 – 7.05	SM	Brown, medium to coarse grained sand, moderately well sorted.			3,3,3 (9)
			6.45 – 6.75m. – well sorted with occassional pebbles and nodules of clayey sand.	H	MD	
SAND, clayey.	7.05 – 7.8	SC	Mottled grey-brown silty and clayey sand.	H	D	5,8,14 (27)
GRAVEL, sandy. SPT 8.25-8.50 30, bouncing	7.8 – 10		Poorly sorted clayey and sandy gravel consisting of quartz and quartzite pebbles.			

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
1 Dec '66 / Casing	H - Humid	VS - Very Soft	Ls – Loose	VL - Very Loose	OPEN TUBE: A Shoe, D Shoe
Water level (date)	D - Damp	S - Soft	MC – Moderately Compact	L - Loose	SEALED TUBE WITH NUMBER
WC ▶ Water Cut	M - Moist	F - Firm	C - Compact	MD - Medium Dense	STANDARD PENETRATION TESTS
	W - Wet	St - Stiff	VC - Very Compact	D - Dense	Total blows for 0.3m (in 0.1m increments)
	S - Saturated	V St - Very Stiff		VD - Very Dense	
	LL - Liquid Limit	H - Hard			
	PL - Plastic Limit	50mm Diameter CONE TEST eg 10 3 4 3			

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE C. TOOL — LOGGED BY S.R.B.

CIRCULATION — DATE 22·8·79

START — TRACED BY D.W.W.

FINISH — DATE 26/11/79

SHEET 1 OF 2

1643

MF 58

C-58

DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT – FOUNDATION INVTGN.

LOCATION OR CO-ORDS: McKINNON PDE, NORTH ADELAIDE

SEC. Adj T.A.978 HD. YATALA

EL Surface 32.483 m.

EL ref. point

Datum A.H.D.

HOLE NO. T 2

UNIT/STATE NO 6628420 EW11116

SERIAL NO: 301/80

FOLDER NO. 089063

GEOLOGICAL DESCRIPTION OF CORE	DEPTH m	GROUP SYMBOL	SOIL DESCRIPTION (GROUP NAME, Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966)	WATER LEVEL	MOISTURE CONTENT	FIELD TEST DATA – BLOWS PER 30 cm
CLAY	10	CH	Mottled orange-brown, micaceous.		D	12,12,12(36)
GRAVEL, sandy.	10–13.6			Seepage (≈11)		
CLAY	≈13.6		Dark grey green.			12,17,18(47)
GRAVEL, sandy.	13.8–16					
(CW) BEDROCK. Blanch PT. Marls.	16–18.25					4,5,8(17)
End of Hole 18.25 m.	18.25		SPT at 18.25 m. No penetration			

WATER LEVELS	MOISTURE CONTENT	CONSISTENCY (Clays)	COMPACTNESS (Silts)	RELATIVE DENSITY (Sands)	TYPE OF SAMPLE
7 Dec '66 / Casing	H – Humid	VS – Very Soft	Ls – Loose	VL – Very Loose	OPEN TUBE: A Shoe, D Shoe
Water level (date)	D – Damp	S – Soft	MC – Moderately Compact	L – Loose	SEALED TUBE WITH NUMBER
WC ▶ Water Cut	M – Moist	F – Firm	C – Compact	MD – Medium Dense	STANDARD PENETRATION TESTS
	W – Wet	St – Stiff	VC – Very Compact	D – Dense	Total blows for 0.3m (in 0.1m increments)
	S – Saturated	V St – Very Stiff		VD – Very Dense	
	LL – Liquid Limit	H – Hard			
	PL – Plastic Limit	C 50mm Diameter CONE TEST eg 10 3 4 3			

* Penetrometer value X100 ≈ unconfined compressive strength in kPa for clay soils only

DRILL TYPE C. TOOL	LOGGED BY S.R.B.
CIRCULATION	DATE 22-8-79
START	TRACED BY D.W.W.
FINISH	DATE 26/11/79
SHEET 2 OF 2	

1643

MF 58

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DEPARTMENT OF MINES AND ENERGY – SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: McKinnon Pde. Nth. Adelaide, EL Surface 32.454 m.

SEC. 475 HD YATALA EL ref. point Datum A.H.D.

HOLE NO. T3
UNIT/STATE NO 662842aEW11117
SERIAL NO 301/80
FOLDER NO 089064

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME (Unified Soil Classification, U.S.B.R. Earth Manual 2nd Edition 1966)	WATER LEVEL	Casing	MOISTURE CONTENT	Consistency Compct Denstv	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units * (1 2 3)
TOPSOIL.				OL	Dark chocolate brown sandy silt and organic matter.						
SILTY CLAY.		1			Red brown, slightly silty, some organic matter. Mottled fawn, red-brown, with calcareous concretions becoming larger with depth.			M	St		
		2		CL/ML	Concretions increasing in size.			H	VSt	5-5-6 (16)	
		3			Becoming slightly sandy				VSt		
		4								10-7-7 (24)	
		5			Occasional pebbles.			H			
		6							VSt	3-5-6 (14)	
		7			Mottled fawn and grey clay with large concretions and very fine mica.						
					Mottled orange and grey silty clay with very fine mica.			H			
		8								3-3-6 (12)	
		9							St		
		10						H		5-6-9	

WATER LEVELS: Water level (date) 7 Dec. 66; Casing; WC Water Cut

MOISTURE CONTENT: H Humid; D Damp; M Moist; W Wet; S Saturated; LL Liquid Limit; PL Plastic Limit

CONSISTENCY (Clays): VS Very Soft; S Soft; F Firm; St Stiff; VSt Very Stiff; H Hard

50mm Diameter CONE TEST eg 10-13-15

COMPACTNESS (Silts): L Loose; MC Moderately Compact; C Compact; VC Very Compact

RELATIVE DENSITY (Sands): VL Very Loose; L Loose; MD Medium Dense; D Dense; VD Very Dense

TYPE OF SAMPLE: OPEN TUBE A Shoe; D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TEST (1 2 3); Total blows for 0.3m (in 0.1m increments)

* Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only

DRILL TYPE CABLE TOOL — LOGGED BY S.R.B.
CIRCULATION — DATE
START — TRACED BY D.W.W.
FINISH — DATE 26/11/79

SHEET 1 OF 2

1643

MF 58

C-60

DEPARTMENT OF MINES AND ENERGY — SOUTH AUSTRALIA
ENGINEERING DIVISION

LOG OF FOUNDATION HOLE

PROJECT: NORTHEAST TRANSIT CORRIDOR PROJECT - FOUNDATION INVTGN.

LOCATION OR CO-ORDS: McKinnon Pde. Nth. Adelaide EL Surface 32.454 m.

SEC 475 HD YATALA EL ref point Datum A.H.D

HOLE NO. T3
UNIT/STATE NO 662842aEW11117
SERIAL NO 301/80
FOLDER NO 089064

GEOLOGICAL DESCRIPTION OF CORE	HOLE Dia	DEPTH m	GRAPHIC LOG	GROUP SYMBOL	SOIL DESCRIPTION GROUP NAME Unified Soil Classification, USBR Earth Manual 2nd Edition 1966	WATER LEVEL Casing	MOISTURE CONTENT	Consistency Compact Density	FIELD TEST DATA: BLOWS PER 30 cm (4 8 16 32 64)	FIELD TEST DATA: SOIL TEST PENETROMETER Units *
GRAVEL.		10		GP	Sandy and slightly clayey gravel.					
		11			W.L. ▼					
		12								
		13								
		14								
		15								
		16								
(CW) BASEMENT Blanche Pt. Marls.		17			Fawn, grading to dark grey green.					
		18								
		19								
SPT 20.0 - 20.15 (37, bouncing)		20			END OF HOLE 20.15 m.					

WATER LEVELS: Water level (date) 7 Dec. '66; Casing; WC Water Cut

MOISTURE CONTENT: H Humid; D Damp; M Moist; W Wet; S Saturated; LL Liquid Limit; PL Plastic Limit

CONSISTENCY (Clays): VS Very Soft; S Soft; F Firm; St Stiff; V St Very Stiff; H Hard

50mm Diameter CONE TEST eg 10 3 4 5

COMPACTNESS (Silts): Ls Loose; MC Moderately Compact; C Compact; VC Very Compact

RELATIVE DENSITY (Sands): VL Very Loose; L Loose; MD Medium Dense; D Dense; VD Very Dense

TYPE OF SAMPLE: OPEN TUBE A Shoe, D Shoe; SEALED TUBE WITH NUMBER (A 1 2 3 4 5); STANDARD PENETRATION TESTS (1 2 3 4); Total blows for 0.3m (in 0.1m increments)

* Penetrometer value X100 = unconfined compressive strength in kPa for clay soils only

DRILL TYPE CABLE TOOL	LOGGED BY S.R.B.
CIRCULATION WATER	DATE
START	TRACED BY D.W.W
FINISH	DATE 26/11/79

SHEET 2 OF 2

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MF 58

DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA

ENGINEERING CLASSIFICATION OF SOILS

The Unified Soil Classification System

COARSE-GRAINED SOILS
More than 50% of material is larger than No. 200 B.S. sieve size

FIELD INVESTIGATION PROCEDURES (Excluding particles larger than 7·5cm and basing fractions on estimated weights)			GROUP SYMBOL	GROUP NAME and typical materials
GRAVELS More than 50% of the coarse fraction is larger than 2mm (retained on BS 7 sieve)	**CLEAN GRAVELS** Little or no fines	Wide range in grain sizes, and substantial amounts of all intermediate particle sizes	GW	**GRAVEL, well graded;** gravel sand mixtures, little or no fines
		Predominantly one size or a range of sizes, with some intermediate sizes missing	GP	**GRAVEL, poorly graded;** gravel sand mixtures, little or no fines
	DIRTY GRAVELS Appreciable amount of fines	Non plastic fines—for indentification see ML below	GM	**GRAVEL, excess silty fines;** poorly graded gravel-sand-silt mixtures
		Plastic fines—for identification see CL below	GC	**GRAVEL, excess clayey fines;** poorly graded gravel-sand-clay mixtures
SANDS More than 50% of the coarse fraction is smaller than 2mm (passing BS 7 sieve)	**CLEAN SANDS** Little or no fines	Wide range in grain sizes, and substantial amounts of all intermediate particle sizes	SW	**SAND, well graded;** well graded sands, gravelly sands, little or no fines
		Predominantly one size or a range of sizes, with some intermediate sizes missing	SP	**SAND, poorly graded;** poorly graded sands, gravelly sands, little or no fines
	DIRTY SANDS Appreciable amount of fines	Non plastic fines—for indentification see ML below	SM	**SAND, excess silty fines;** poorly graded sand-silt mixtures
		Plastic fines—for identification see CL below	SC	**SAND, excess clayey fines;** poorly graded sand-clay mixtures

FINE-GRAINED SOILS
More than 50% of material is smaller than No. 200 B.S. sieve size

FIELD INVESTIGATION PROCEDURES on fraction smaller than 0.4mm. (passing B.S. 36 sieve)							GROUP SYMBOL	GROUP NAME and typical materials
	SOIL CAST (soil wet)	SOIL THREAD	SHINE	DILATANCY	ODOUR	DRY STRENGTH		
SILTS AND CLAYS Liquid limit less than 50	Forms fragile cast. Cracks form when kneaded while moist	Thick crumbly thread, easily broken	None to very dull	Distinct	Not significant	None to slight	ML	**SILT SOIL, low plasticity;** inorganic silts and very fine silty or clayey sands, rock flour
	Cast maybe handled freely without breaking. Can be kneaded moist without cracking. Material adheres to the hand	Thread can be pointed as fine as a lead pencil but is fragile	Moderate	None to slight	Not significant	Moderate	CL	**CLAY SOIL, low plasticity;** inorganic clays of low to medium plasticity, gravelly clay, sand, clays, silty clays, lean clays
	Cast fragile to cohesive material will adhere somewhat to the hand	Soft, weak thread	None to very dull	Slight to distinct	Decayed organic matter	Low	OL	**ORGANIC SOIL, low plasticity;** organic silts and silt clays of low plasticity
SILTS AND CLAYS Liquid limit more than 50	Moderately plastic and cohesive. Material adheres somewhat to the hand	Weak to medium thread. May be crumbly	Dull	None to slight	Not significant	Moderate. Powdered soil feels floury	MH	**SILT SOIL, high plasticity;** inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
	Very plastic and cohesive. Material very sticky to the hand. Greasy to touch	Very tough thread, can be rolled to a pin point	Very glossy	None	Strong earthy	High to very high. Cannot be powdered by finger pressure	CH	**CLAY SOIL, high plasticity;** inorganic clays of high plasticity, fat clays
	Plastic and cohesive. Feels slightly spongy. Greasy to touch	Weak to medium thread. Often soft and fibrous	Moderate to very glossy	None	Decayed organic matter	Moderate to high. Powdered soil may be fibrous	OH	**ORGANIC SOIL, high plasticity;** organic clays of medium to high plasticity
	Readily identified by colour, odour, spongy feel and frequently by fibrous texture						Pt	**PEATY SOIL;** Peat and other highly organic soils

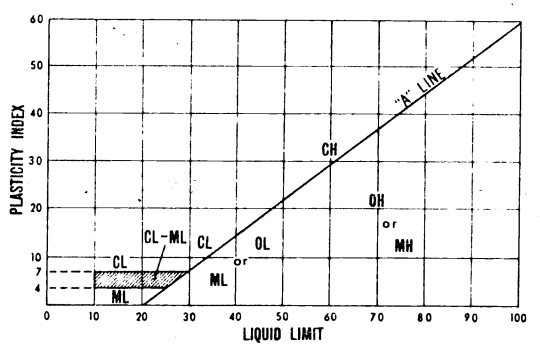
LABORATORY CLASSIFICATION CRITERIA

GRAIN SIZE CURVES to be used to identify soil fractions

Coarse-grained soil classified on basis of percentage of fines, as follows

PERCENT OF FINES	GRAVELS	SANDS
Less than 5	GW GP	SW SP
More than 12	GM GC	SM SC
5 to 12 Borderline cases, use 2 symbols		

$Cu = \frac{D60}{D10}$ Greater than 4 $Cc = \frac{(D30)^2}{D10 \times D60}$ Between 1 and 3		
Not meeting all gradation requirements for GW		
Atterberg limits below "A" line or PI less than 4	Above "A" line with PI between 4 and 7 are borderline cases requiring use of dual symbols	
Atterberg limits above "A" line or PI greater than 7		
$Cu = \frac{D60}{D10}$ Greater than 6 $Cc = \frac{(D30)^2}{D10 \times D60}$ Between 1 and 3		
Not meeting all gradation requirements for SW		
Atterberg limits below "A" line or PI less than 4	Above "A" line with PI between 4 and 7 are borderline cases requiring use of dual symbols	
Atterberg limits above "A" line or PI greater than 7		



PLASTICITY CHART
FOR LABORATORY CLASSIFICATION OF FINE GRAINED SOILS

NOTE BOUNDARY CLASSIFICATIONS; Soil possessing characteristics of two groups are shown as a combination of two group symbols, eg. GW — GC, well graded gravel with clay binder

Based on "The Unified Soil Classification System" United States Department of the Interior, Bureau of Reclamation "Earth Manual" First Edition, Denver, Colorado 1960

NOTE : On Cable Tool Log Subscript (L) = LABORATORY DETERMINATION (F) = FIELD ESTIMATION

MF84

C91

APPENDIX D

Drillhole locations and Geological cross sections

Note: Locations are arranged in geographical order from McKinnon Parade to Modbury.

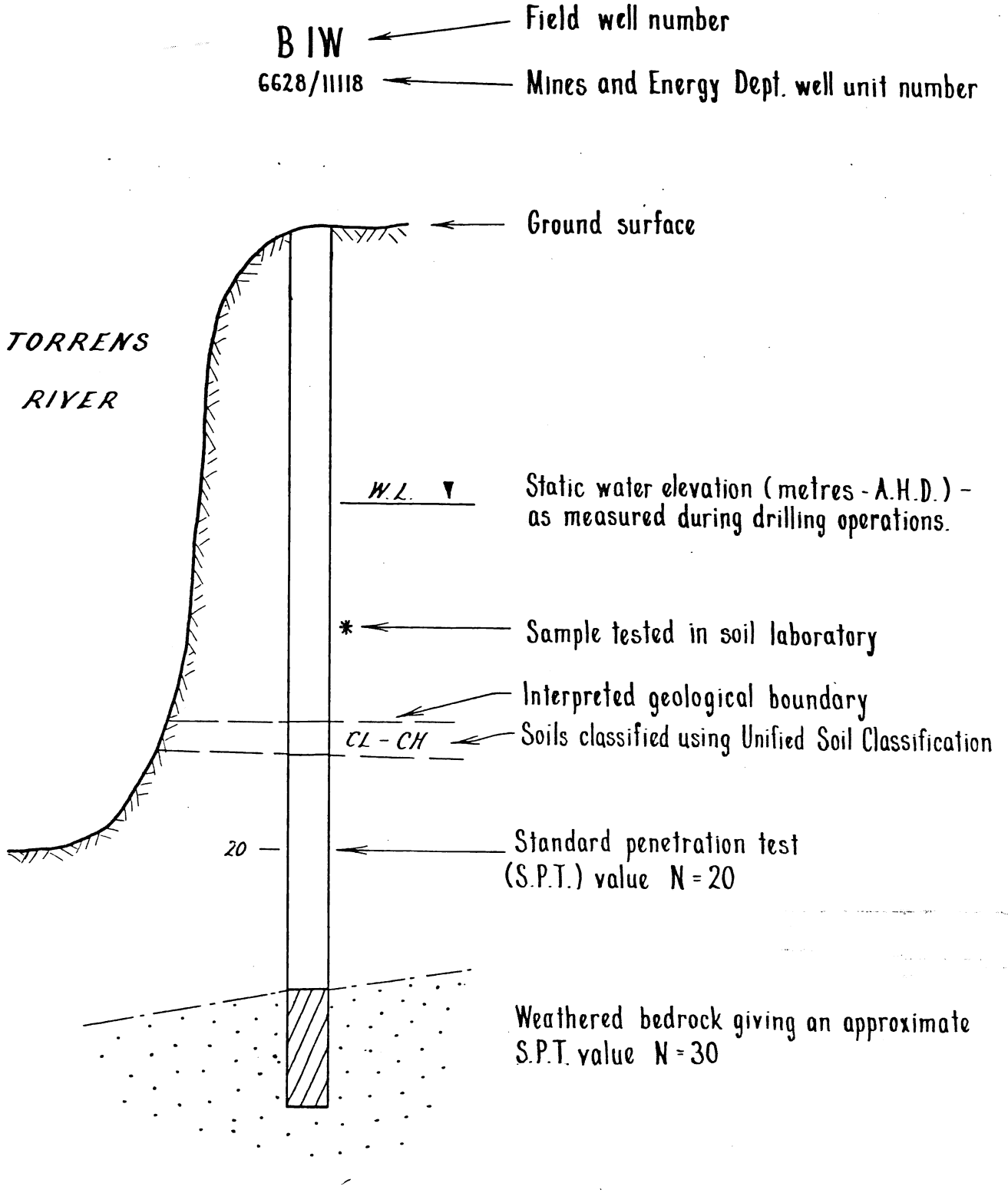
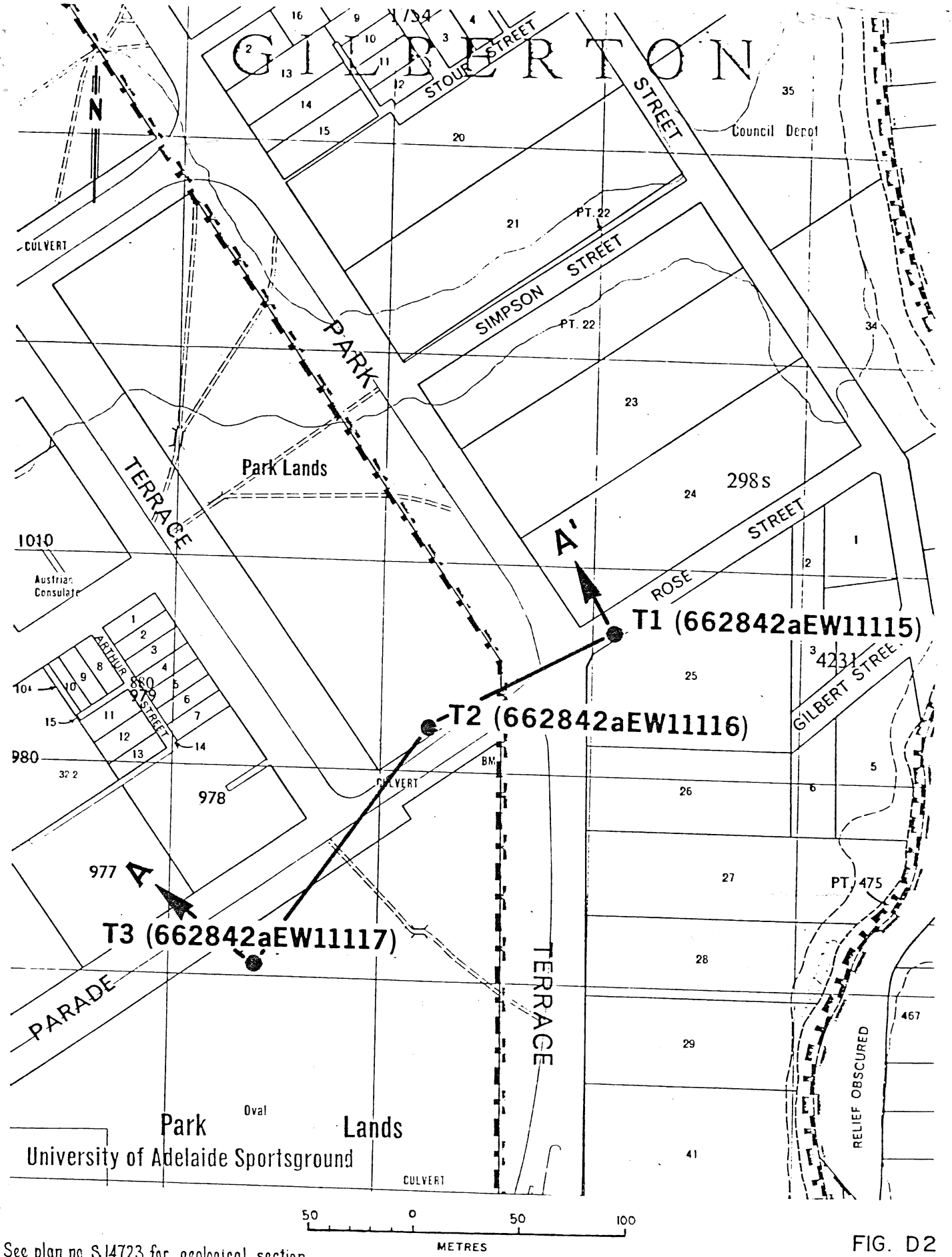


Fig. D 1

DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	COMPILED J. Beal	CDO DATE
NORTH EAST TRANSIT PROJECT LEGEND FOR GEOLOGICAL SECTIONS	DRAWN M. R	SCALE ——
	DATE March 1980	PLAN NUMBER S 14410
	CHECKED	

1643

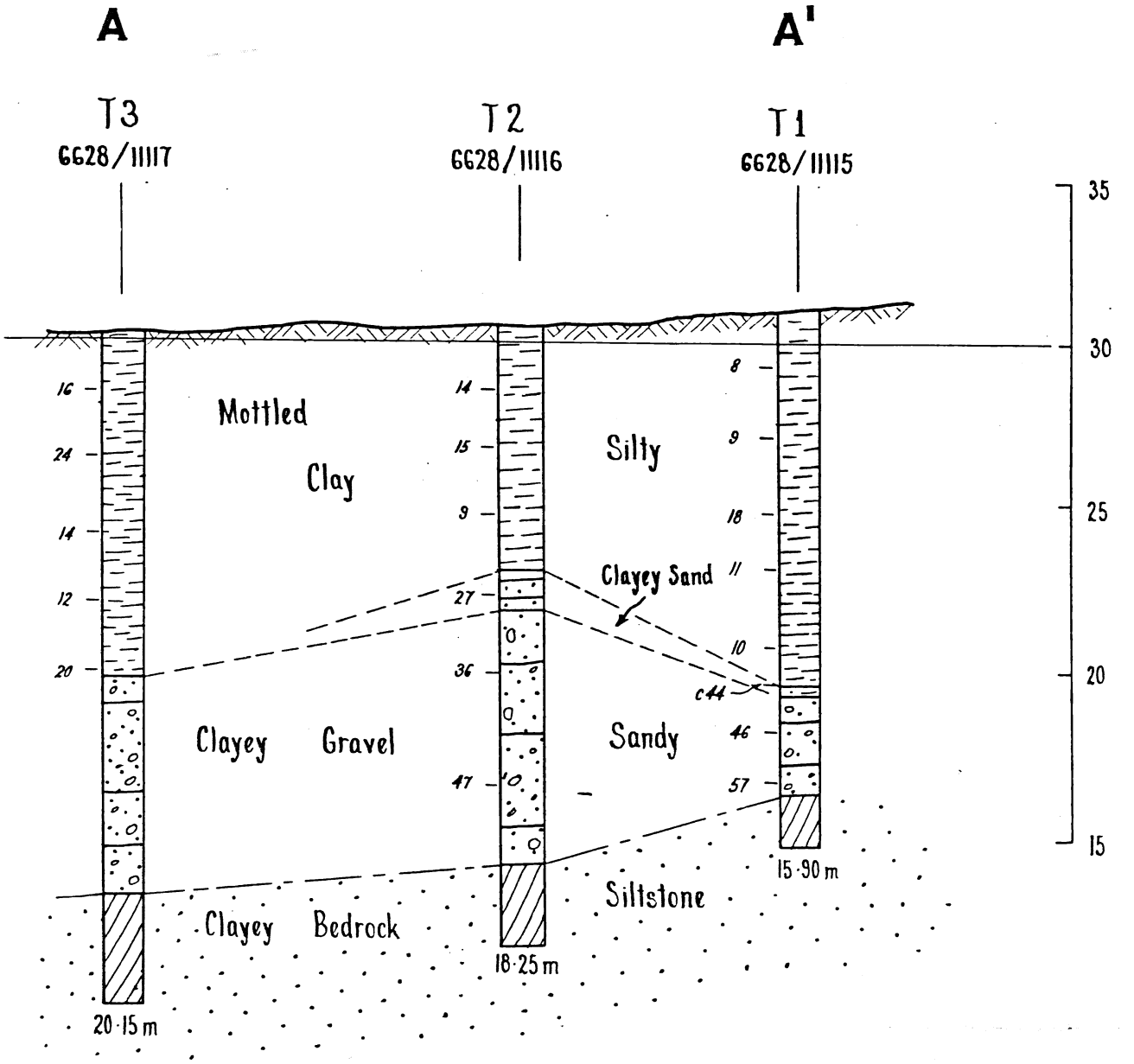


See plan no. S14723 for geological section

FIG. D2

	DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	SCALE 1 : 2500
COMPILED J. Beal	NORTHEAST TRANSIT PROJECT	DATE OCT. 1979
DRN M.R. CKD	DRILLHOLE No. T1, T2, T3 LOCALITY PLAN	PLAN NUMBER S14363

1643



TUNNEL : - McKINNON PARADE

See plan no. S 14363 for location of wells

Fig. D3

	DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	SCALE As shown
COMPILED J. Beal	NORTH EAST TRANSIT PROJECT	DATE March 1980
DRN M R / CKD	GEOLOGICAL SECTION A-A'	PLAN NUMBER S 14723

1865

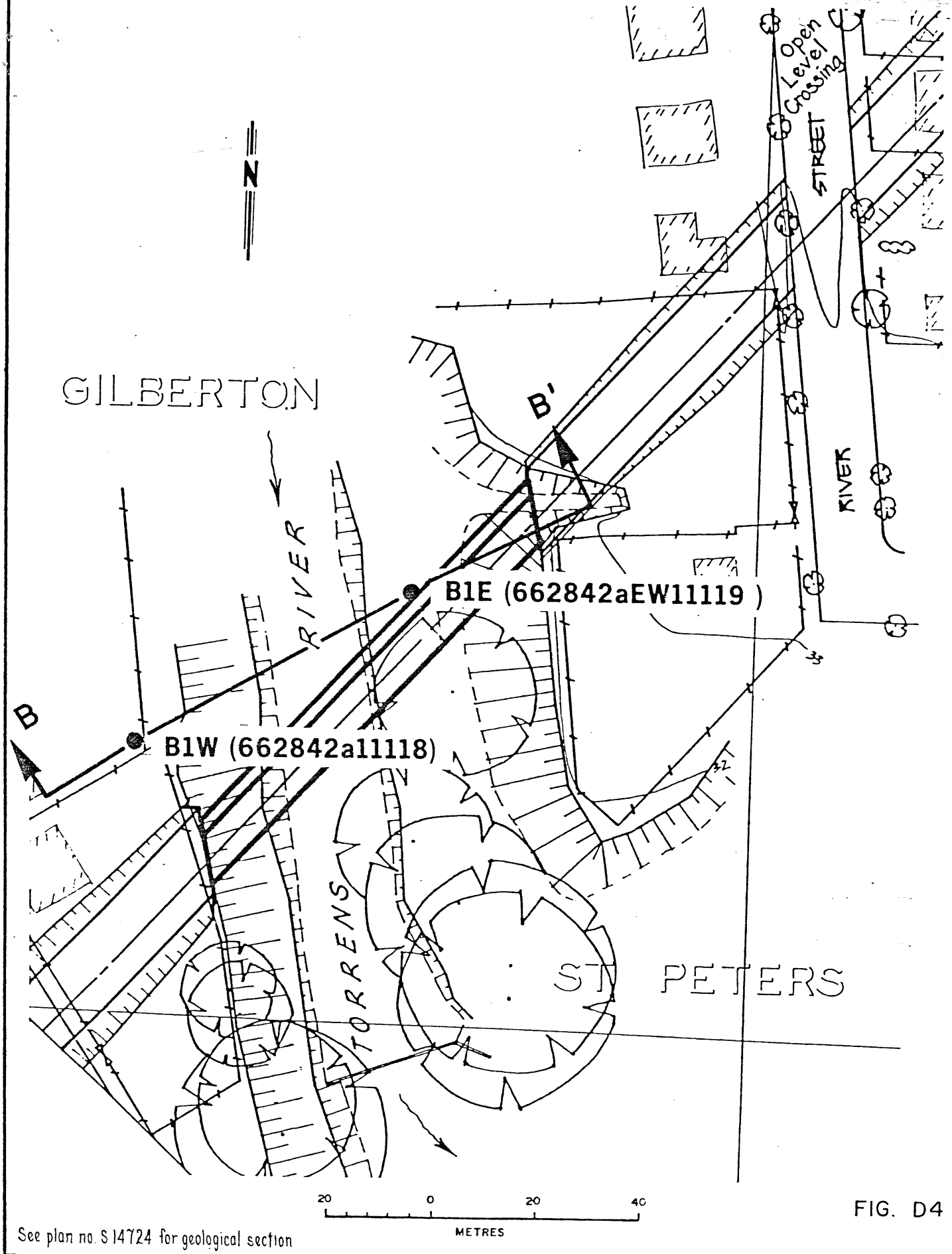
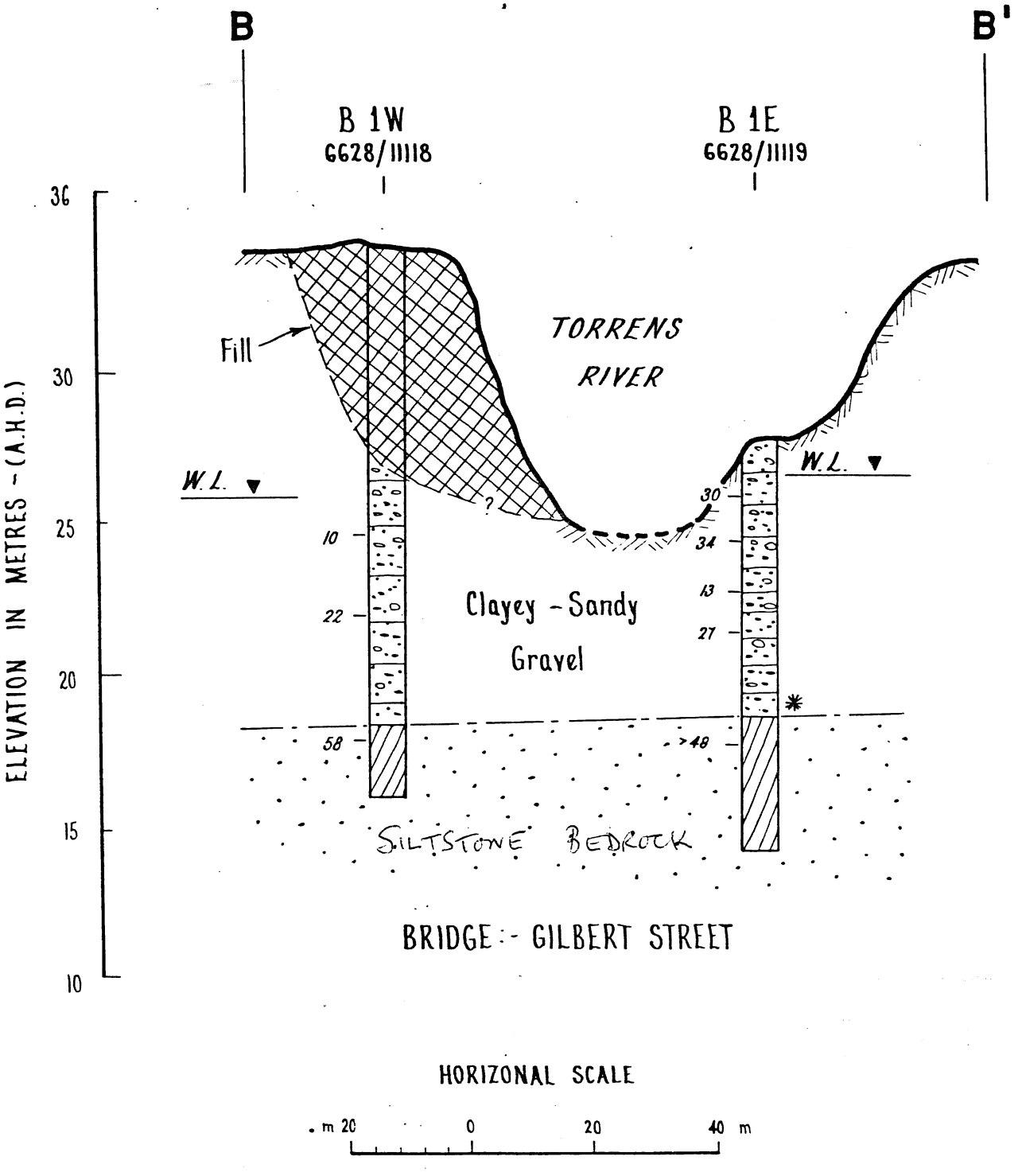


FIG. D4

See plan no. S 14724 for geological section

	DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	SCALE: 1 : 1000
COMPILED: J. Beal	NORTHEAST TRANSIT PROJECT	DATE: OCT. 1979
DRN: M.R. CKD:	DRILLHOLE No. B IW, B IE LOCALITY PLAN	PLAN NUMBER S14364

1643



BRIDGE :- GILBERT STREET

HORIZONAL SCALE

m 20 0 20 40 m

See plan no. S 14364 for location of section

Fig. D5

DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

NORTH EAST TRANSIT PROJECT

GEOLOGICAL SECTION B-B'

COMPILED J. Beal	CHKD DATE
DRAWN M.R.	SCALE As shown
DATE March 1980	PLAN NUMBER S 14724
CHECKED	

1825

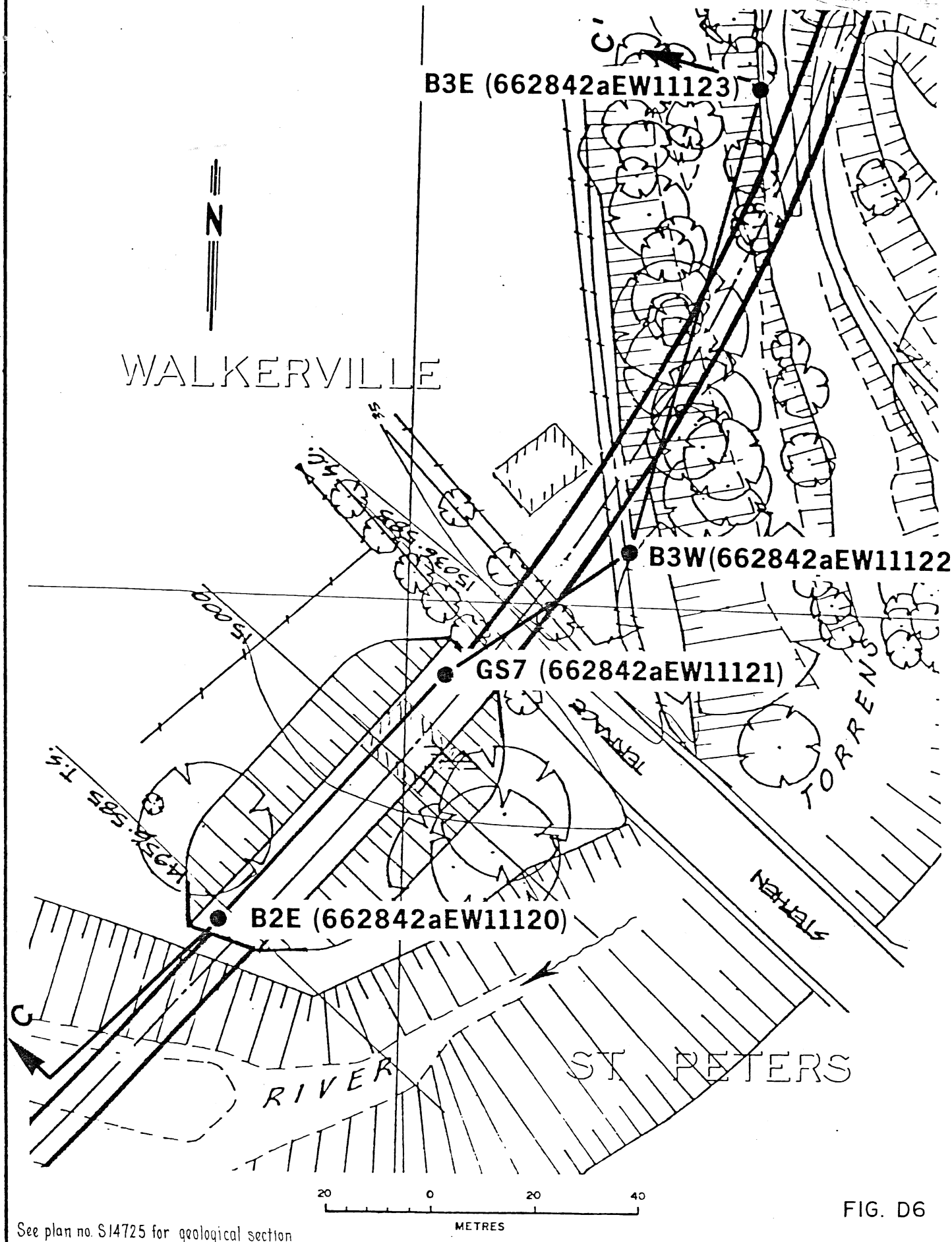


FIG. D6

See plan no. S14725 for geological section

	DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	SCALE 1 : 1000
COMPILED J. Beal	NORTHEAST TRANSIT PROJECT	DATE OCT. 1979
DRN M.R. CKD	DRILLHOLE No. B2E, GS7, B3W, B3E LOCALITY PLAN	PLAN NUMBER S14365

1643

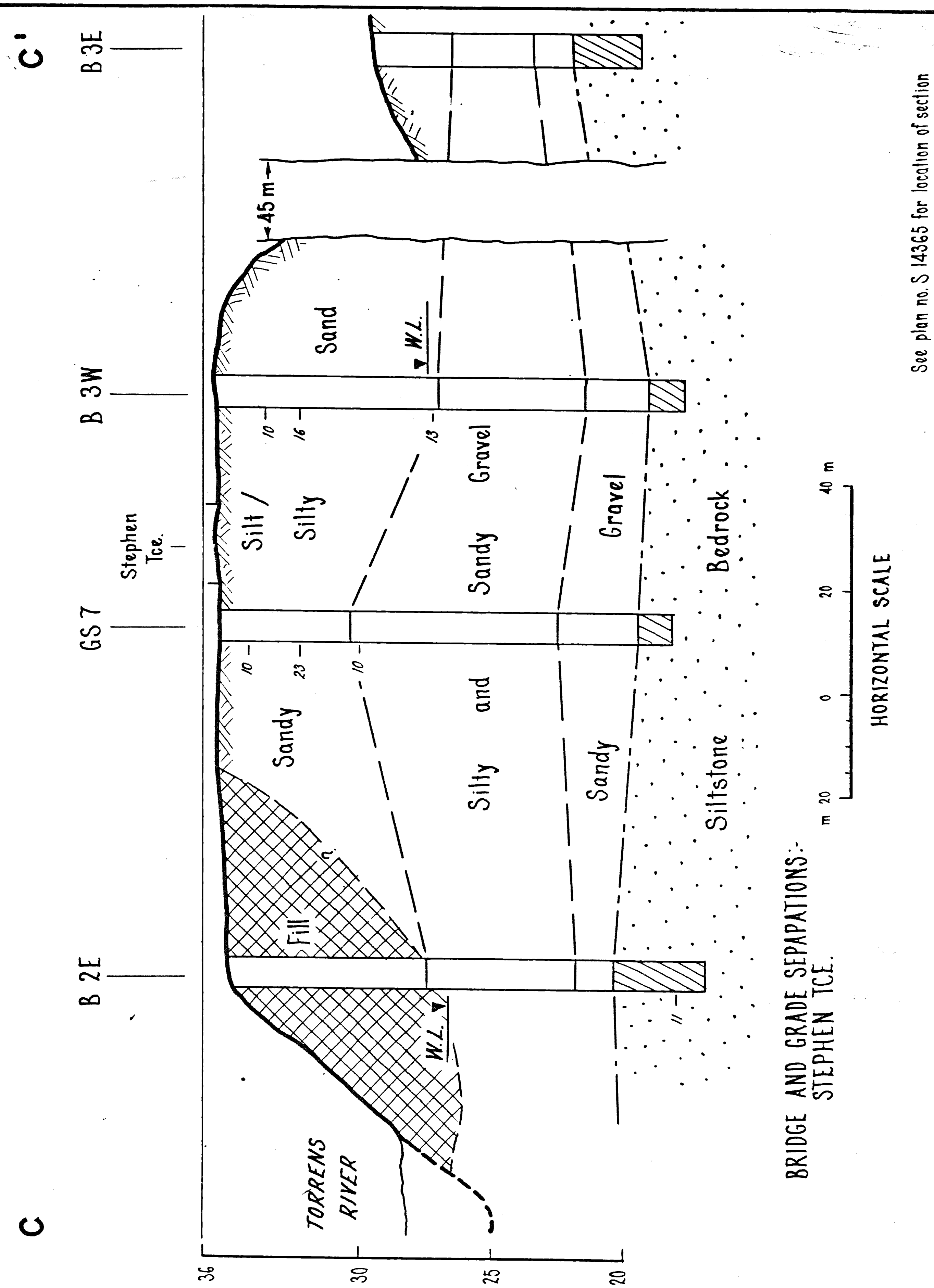


Fig. D7

DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	COMPILED J. Beal	C.D.O. DATE
NORTH EAST TRANSIT PROJECT	DRAWN M.R	SCALE As shown
GEOLOGICAL SECTION C - C'	DATE March 1980 CHECKED	PLAN NUMBER S 14725

1865

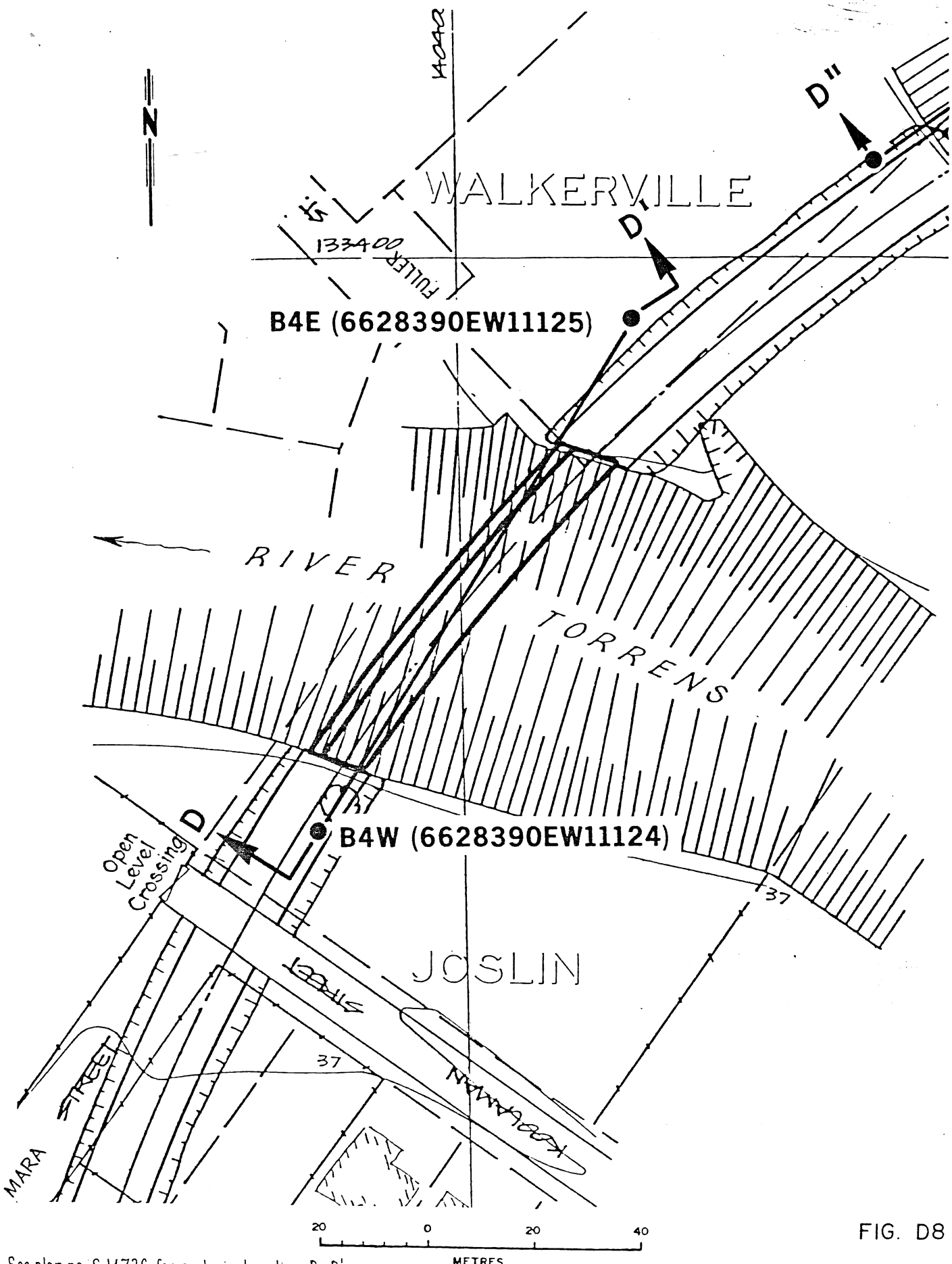


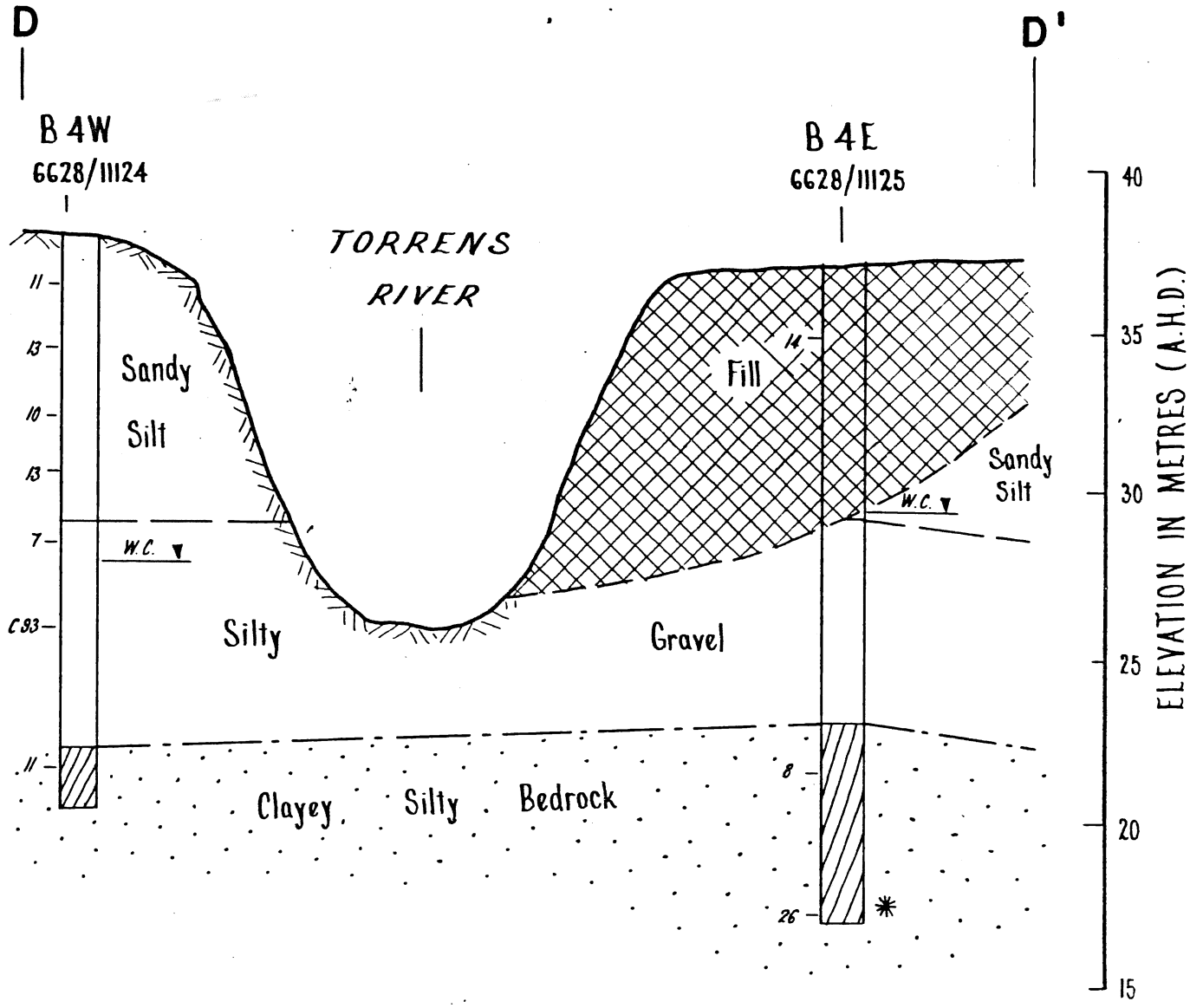
FIG. D8

See plan no. S 14726 for geological section D-D'

	DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	SCALE 1 : 1000
COMPILED: J. Beal	NORTHEAST TRANSIT PROJECT	DATE OCT. 1979
DRN: M.R. CKD	DRILLHOLE No. B4W, B4E LOCALITY PLAN	PLAN NUMBER S14366

1643

D'- D" 45 metres
See plan nos. S14366, S14727



BRIDGE :- KOOLAMAN STREET
(Looking Downstream)

HORIZONTAL SCALE

m 20 0 20 40 m

See plan no. S 14366 for location of section

Fig D9

DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

NORTH EAST TRANSIT PROJECT

GEOLOGICAL SECTION D-D'

COMPILED J. Beal	CDD DATE
DRAWN M.R	SCALE As shown
DATE March 1980	PLAN NUMBER S 14726
CHECKED	

1815

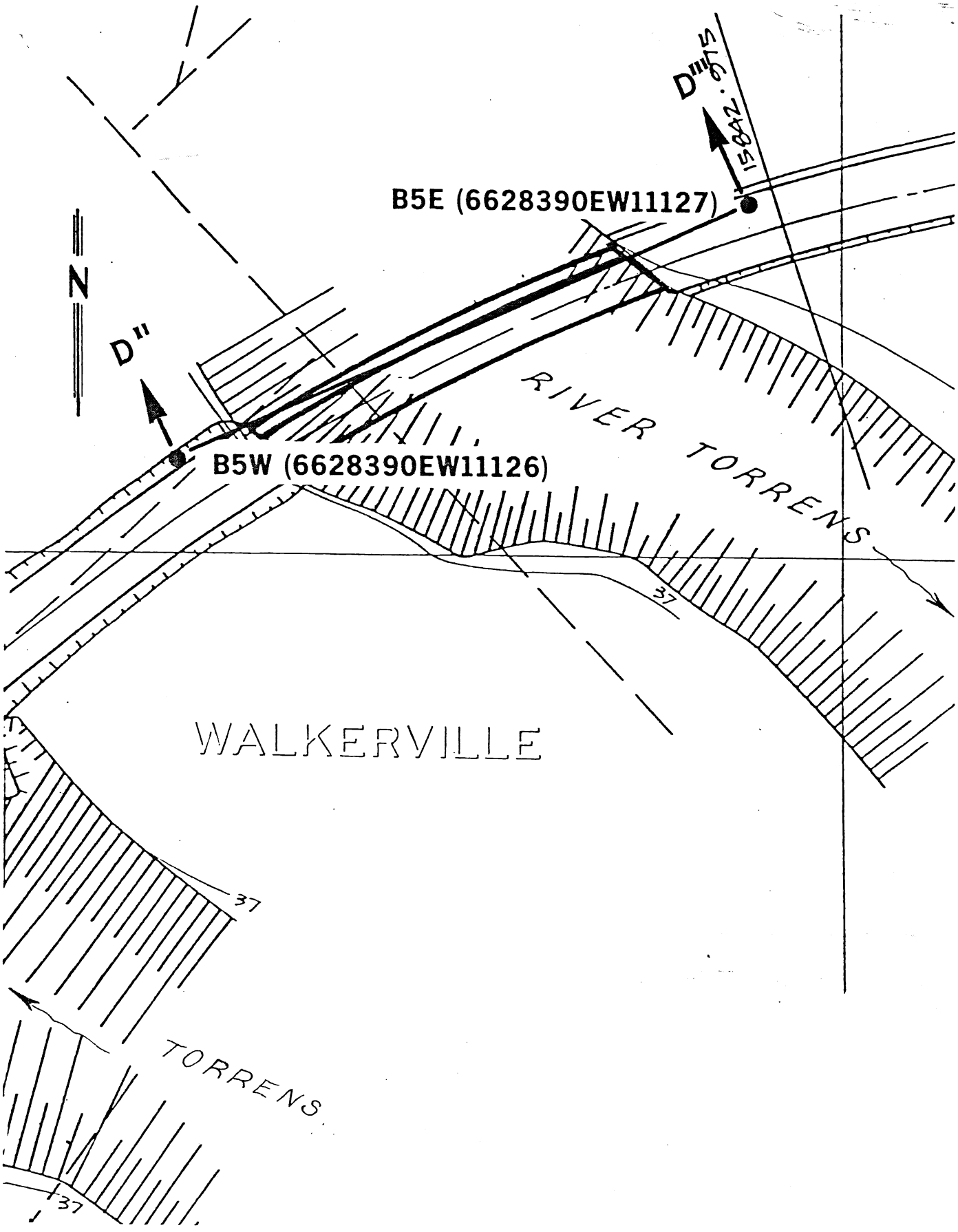


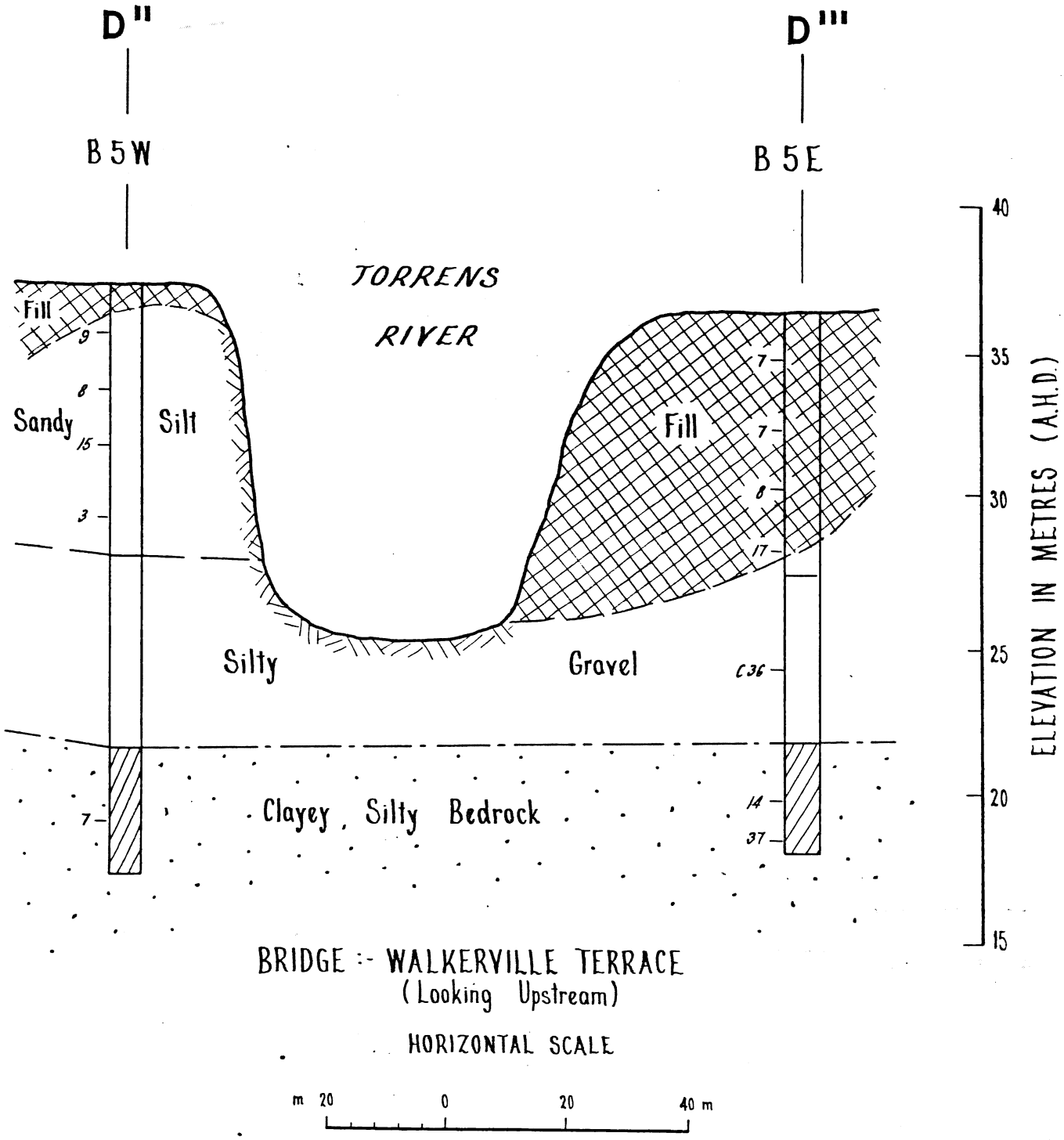
FIG. D10

See plan no. S 14727 for geological section

	DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	SCALE 1 : 1000
COMPILED: J. Beal	NORTHEAST TRANSIT PROJECT	DATE OCT. 1979
DRN M.R. CKD	DRILLHOLE No. B5W, B5E LOCALITY PLAN	PLAN NUMBER S14367

1643

D' - D" 45 metres
See plan nos. S 14366, S 14726



BRIDGE :- WALKERVILLE TERRACE
(Looking Upstream)

HORIZONTAL SCALE

m 20 0 20 40 m

See plan no. S 14367 for location of section

Fig. D 11

DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

NORTH EAST TRANSIT PROJECT

GEOLOGICAL SECTION D"- D'''

COMPILED J. Beal	C.D.O. DATE
DRAWN M.R.	SCALE As shown
DATE March 1980	PLAN NUMBER S 14727
CHECKED	

1865

ST. ANDREWS STREET

LANSDOWNE TERRACE

E

B6 (6628390EW11128)

B7W (6628390EW11129)

E'

B7E (6628390EW11130)

RIVER

TORRENS

AVENUE

BIDE STREET

BATTAMS RD.

m 20 0 20 40 m

HORIZONTAL SCALE

See plan no S 14728 for geological section

1865

Fig. D 12

DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

NORTH EAST TRANSIT PROJECT

DRILLHOLE No. B6, B7W, B7E
LOCALITY PLAN

COMPILED J Beal	C D O DATE
DRAWN M R	SCALE As shown
DATE March 1980	PLAN NUMBER 80-209
CHECKED	

1865

GEOLOGICAL SECTION E-E'

NORTH EAST TRANSIT PROJECT

DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

COMPILED J Beal	DRAWN M.R.	DATE March 1980	CHECKED
C.C.C.	SCALE As shown	DATE	PLAN NUMBER S 14728

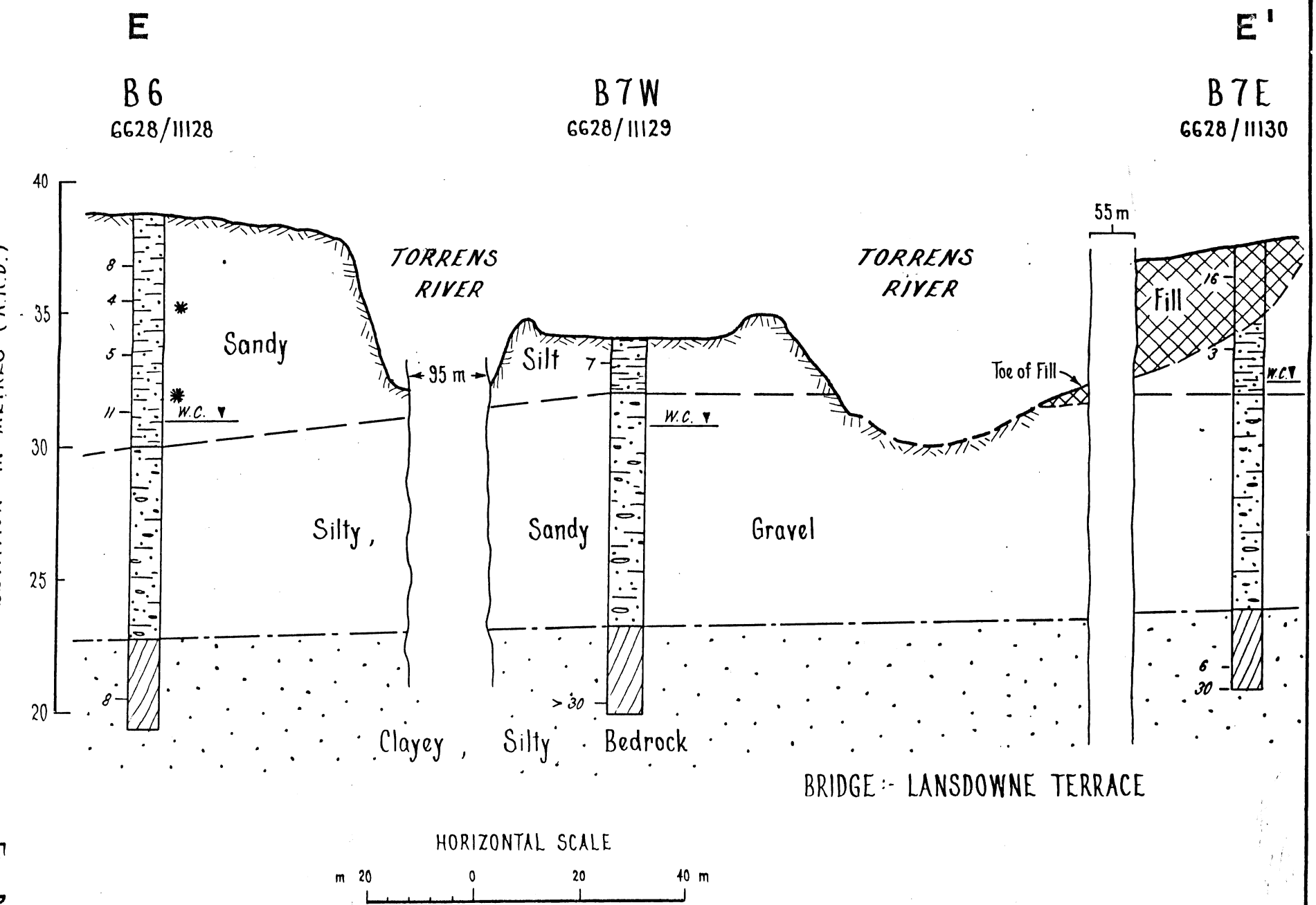


Fig. D 13

See plan no. 80-209 for location of section

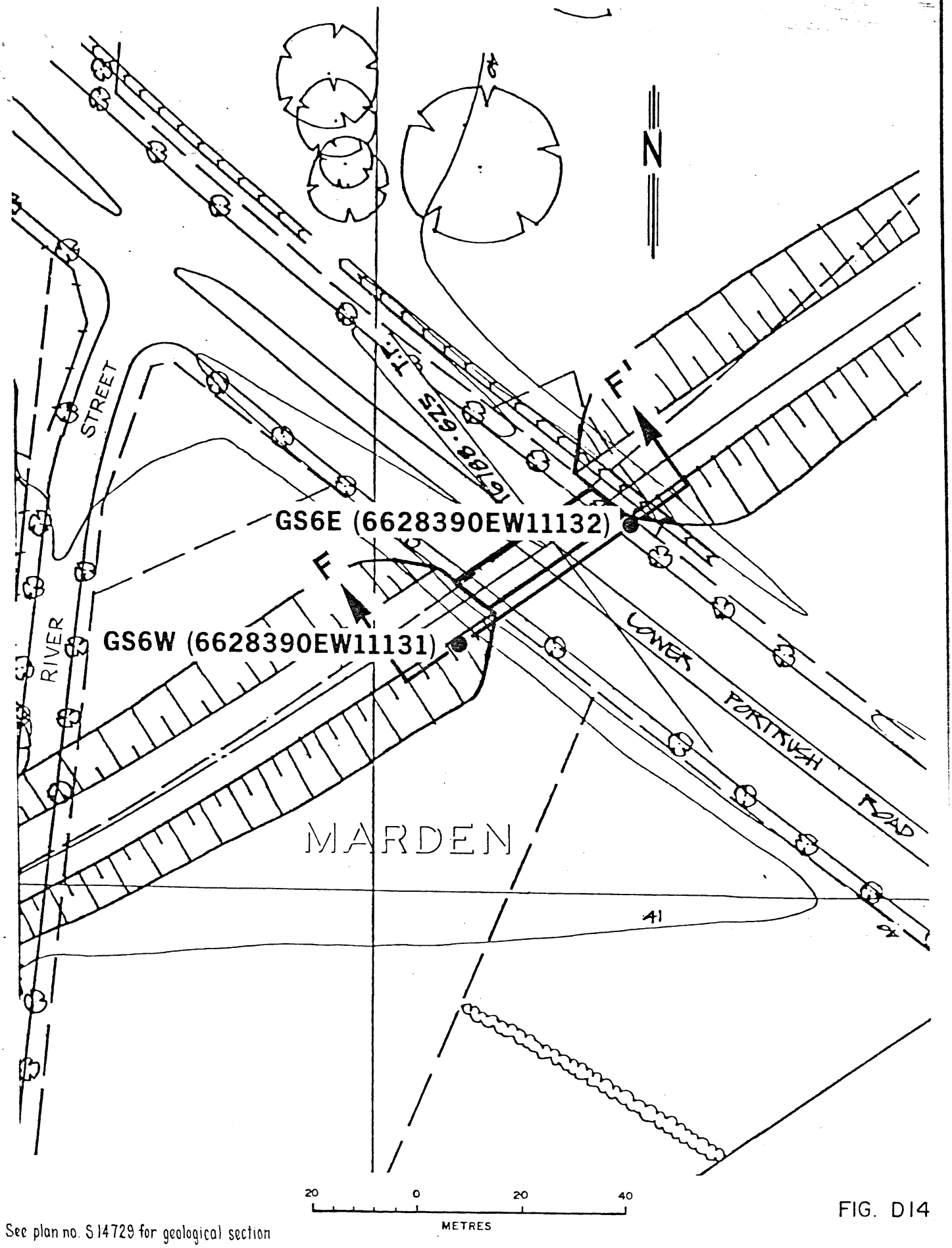
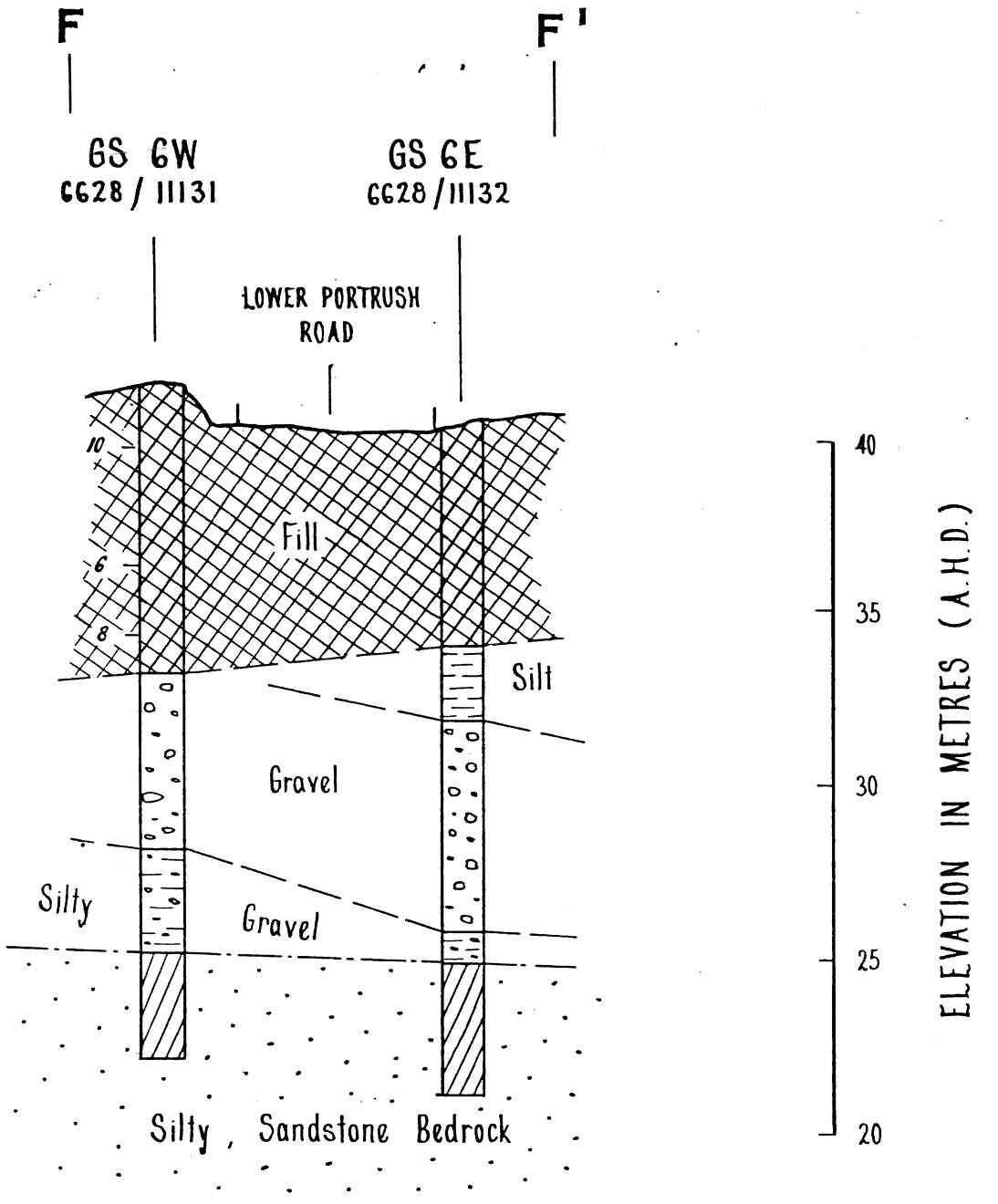


FIG. D14

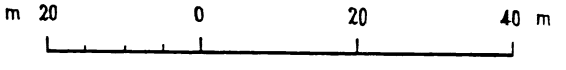
See plan no. S 14729 for geological section

	DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	SCALE 1 : 1000
COMPILED J. Beal	NORTHEAST TRANSIT PROJECT	DATE OCT. 1979
DRN M.R. CKD.	DRILLHOLE No. GS 6W, GS 6E LOCALITY PLAN	PLAN NUMBER S14378

1643



BRIDGE - LOWER PORTRUSH ROAD



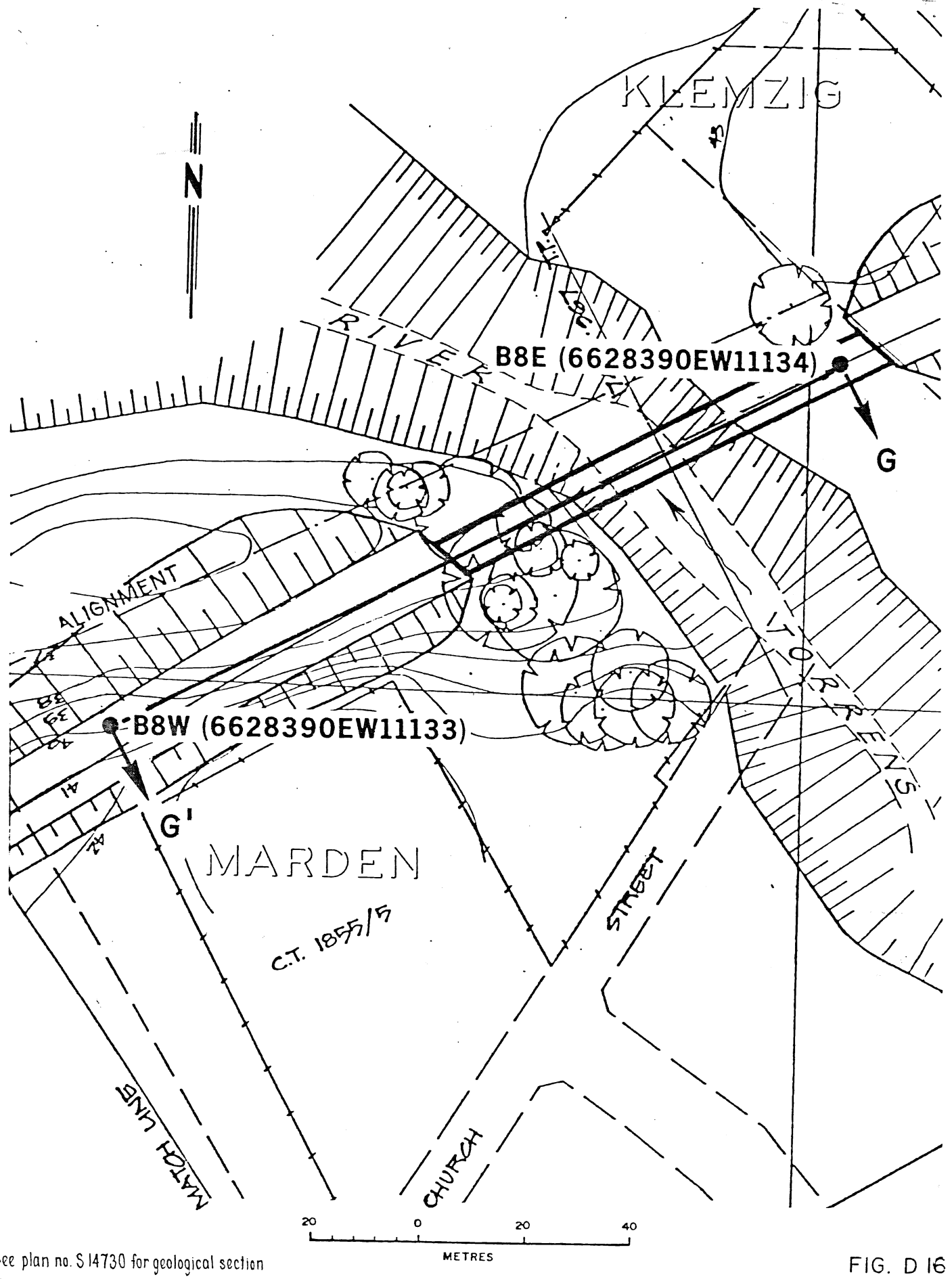
HORIZONTAL SCALE

See plan no. S 14378 for location of section

Fig. D 15

DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	COMPILED J. Beal	C D O DATE
NORTH EAST TRANSIT PROJECT	DRAWN M. R	SCALE As shown
GEOLOGICAL SECTION F - F'	DATE March 1980	PLAN NUMBER S 14729
	CHECKED	

1865



See plan no. S 14730 for geological section

FIG. D 16

	DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	SCALE 1 : 1000
COMPILED J. Beal	NORTHEAST TRANSIT PROJECT	DATE OCT. 1979
DRN M.R. CKD	DRILLHOLE No. B 8W, B 8E LOCALITY PLAN	PLAN NUMBER S14370

1643

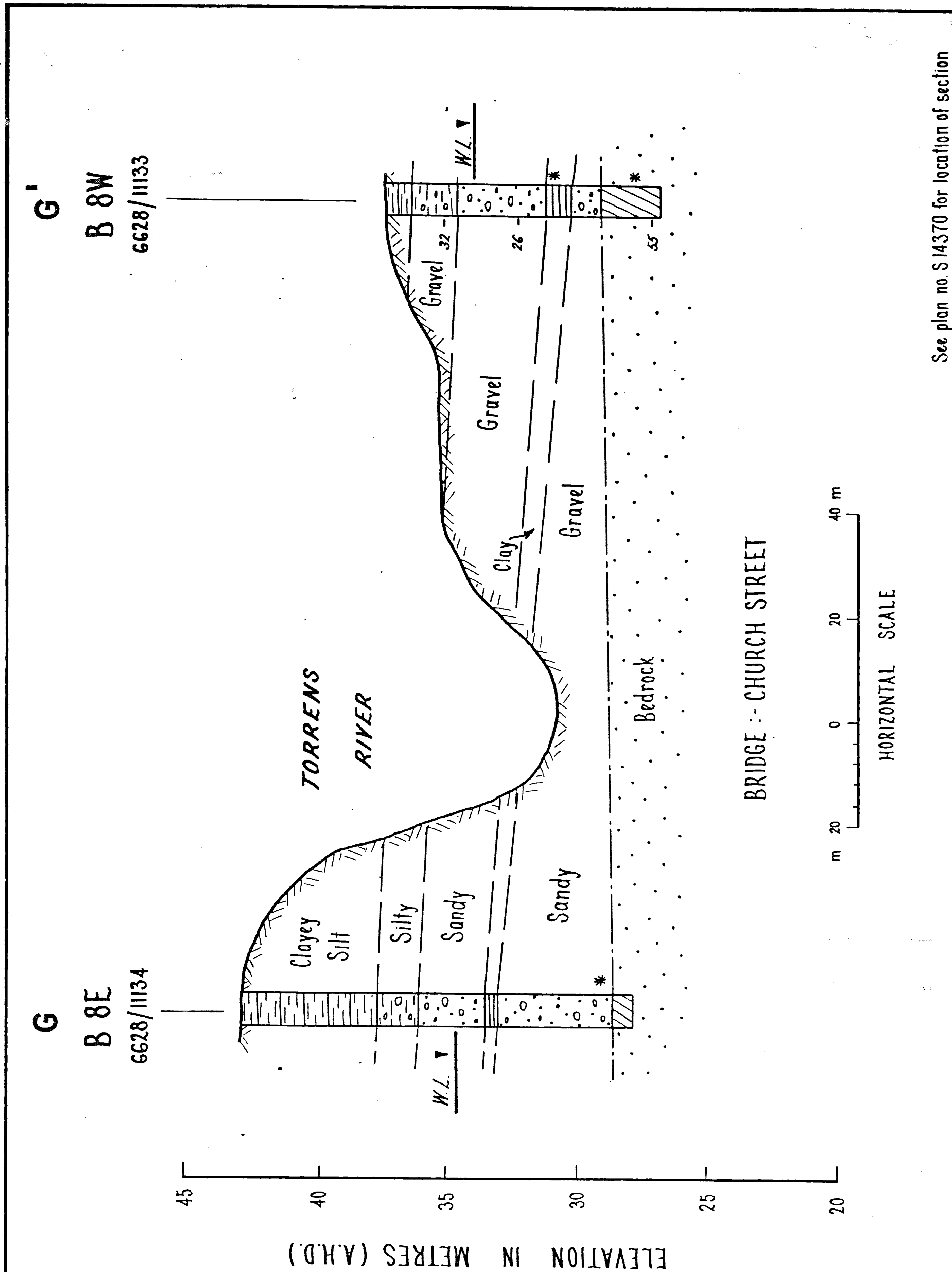


Fig. D17

DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

NORTH EAST TRANSIT PROJECT

GEOLOGICAL SECTION G - G'

COMPILED J. Beal	DATE
DRAWN M.R.	SCALE As shown
DATE March 1980	PLAN NUMBER
CHECKED	S 14730

1865

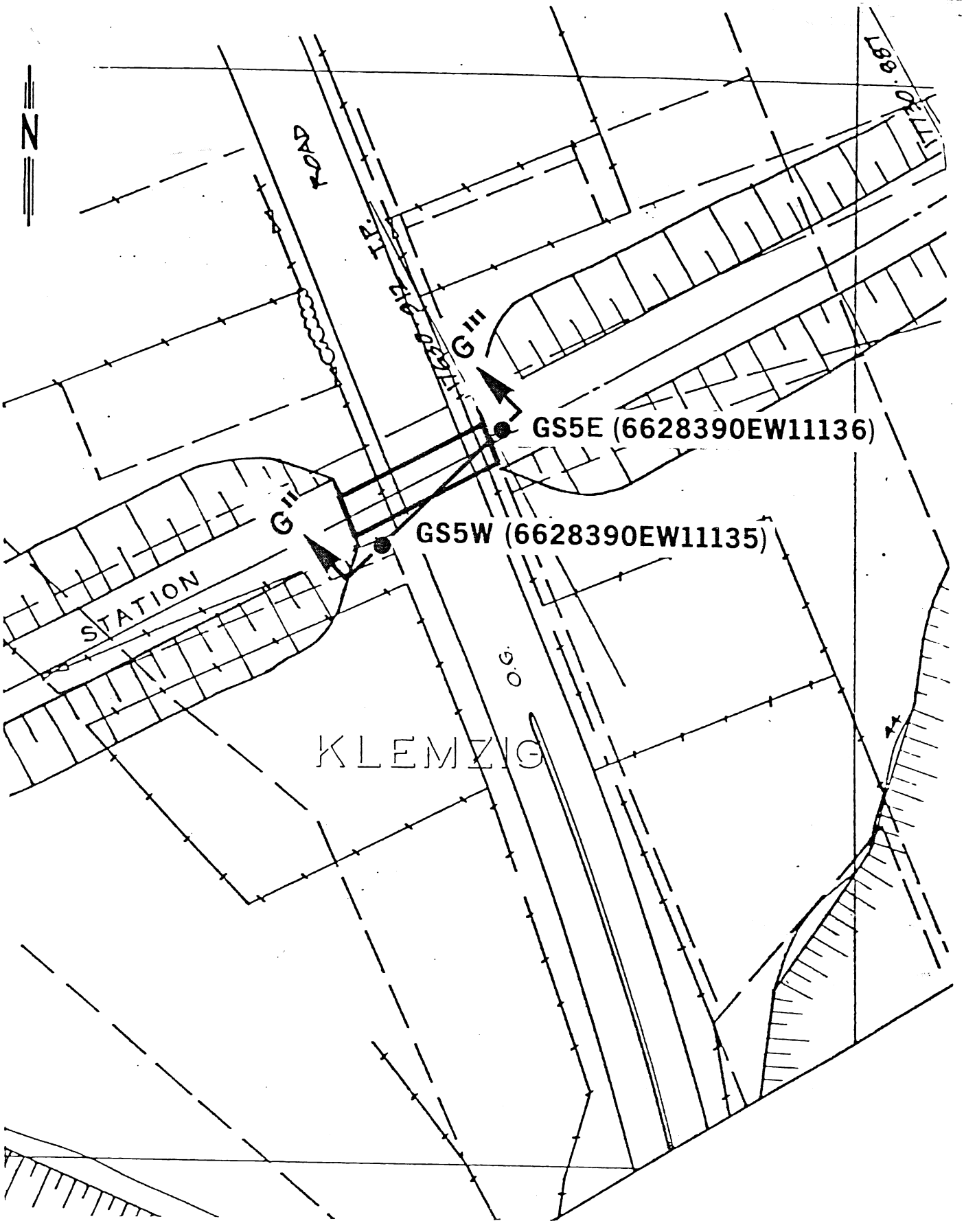
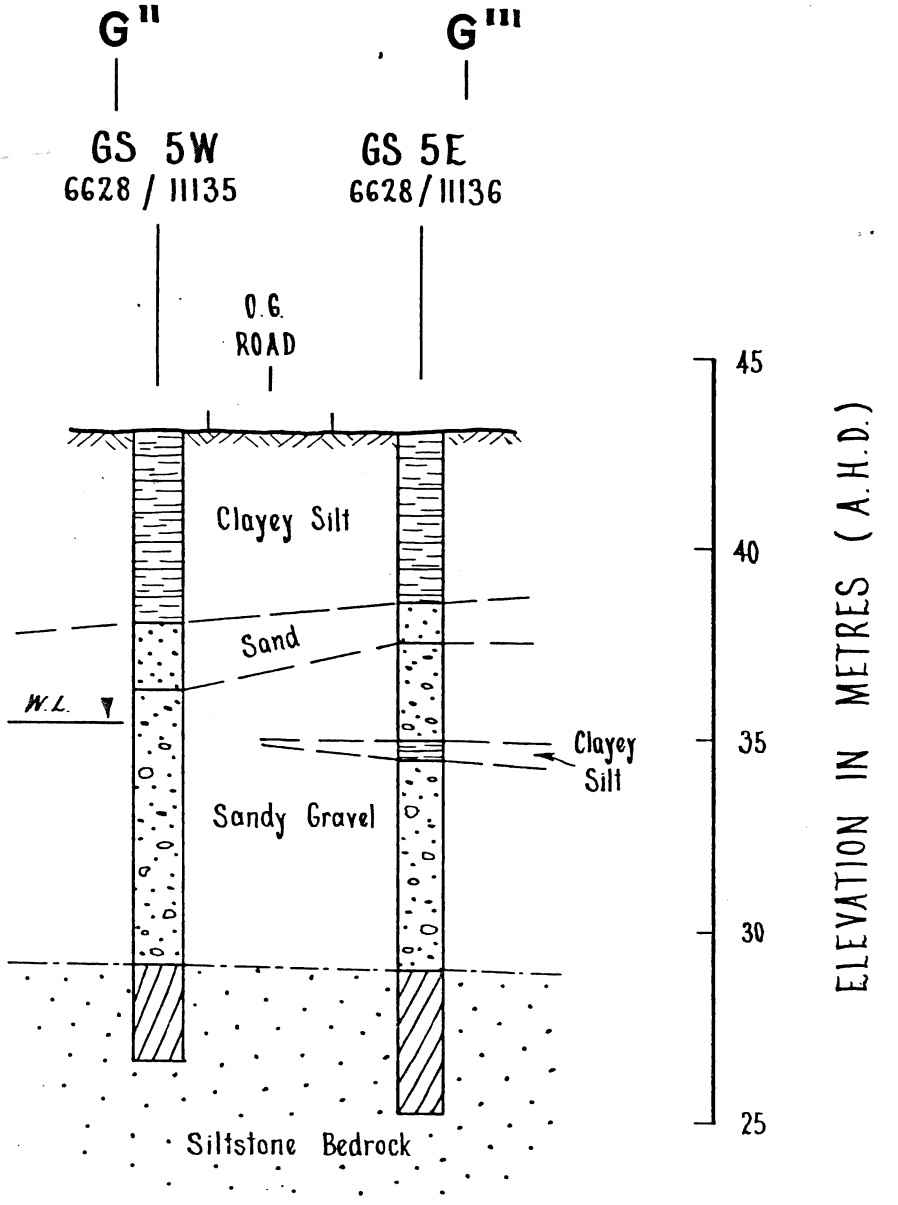


FIG. D 18

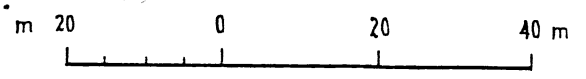
See plan no. S 14731 for geological section

	DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	SCALE: 1 : 1000
COMPILED: J. Beal	NORTHEAST TRANSIT PROJECT	DATE: OCT. 1979
DRN: M.R. CKD:	DRILLHOLE No. GS 5E, GS 5W LOCALITY PLAN	PLAN NUMBER S14377

1643



GRADE SEPARATION :- O.G. ROAD



HORIZONTAL SCALE

See plan no. S 14377 for location of section

Fig. D 19

DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	COMPILED J. Beal	DATE
NORTH EAST TRANSIT PROJECT	DRAWN M R	SCALE As shown
GEOLOGICAL SECTION G"-G'''	DATE March 1980	PLAN NUMBER S 14731
	CHECKED	

1863

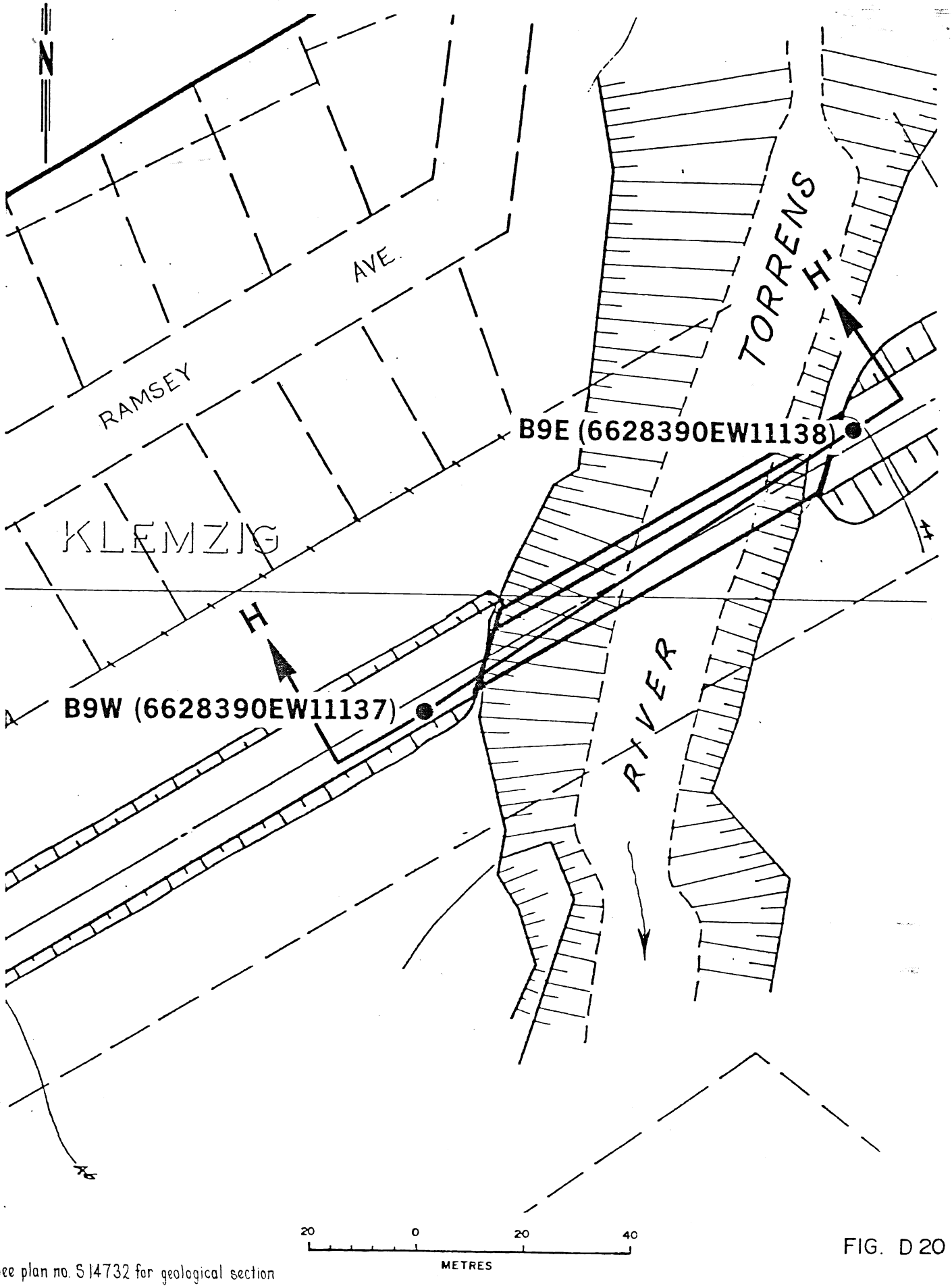
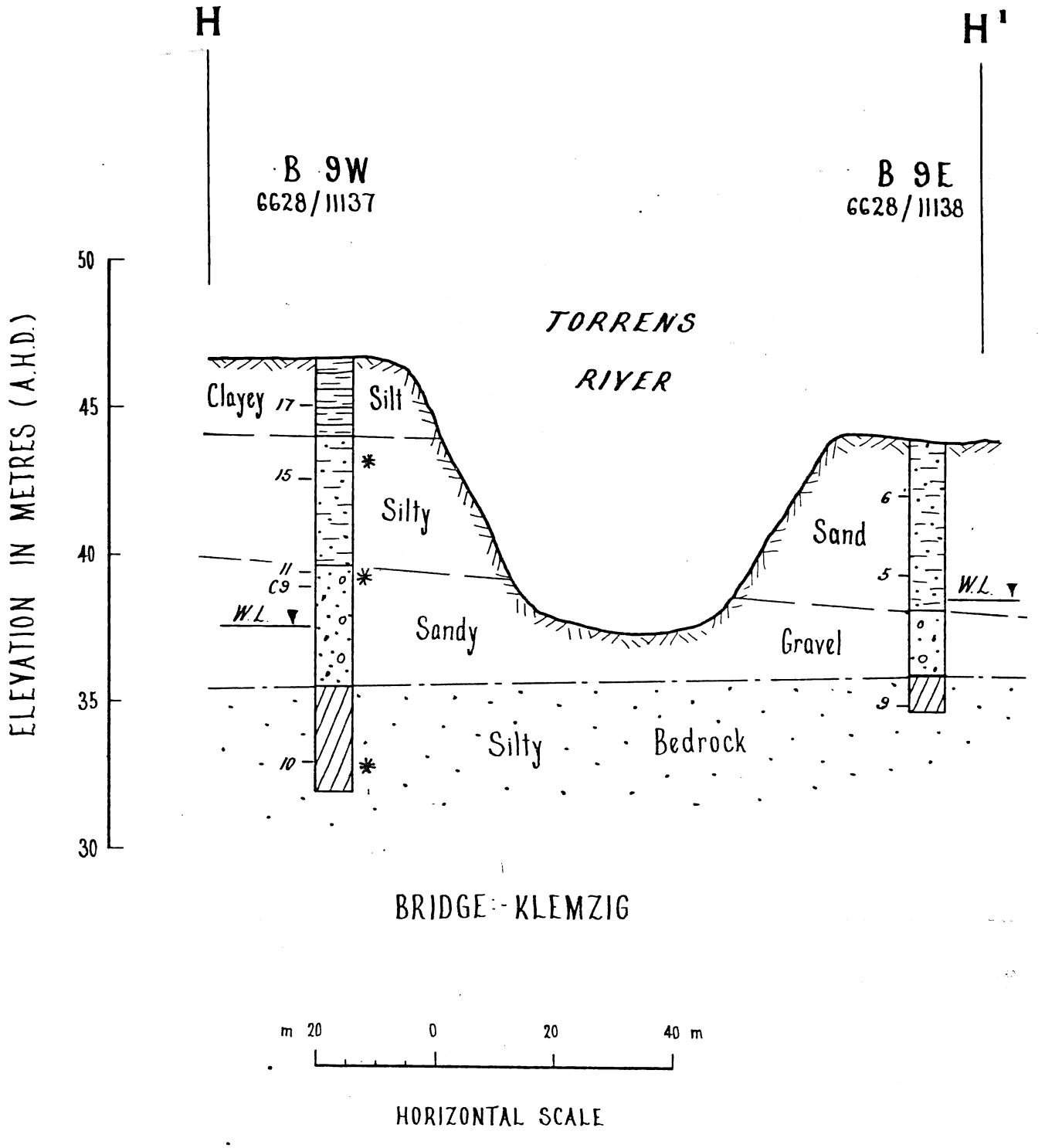


FIG. D 20

See plan no. S 14732 for geological section

	DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	SCALE 1 : 1000
COMPILED J. Beal	NORTHEAST TRANSIT PROJECT	DATE OCT. 1979
DRN M.R. CKD	DRILLHOLE No. B 9W, B 9E LOCALITY PLAN	PLAN NUMBER S14371

1613



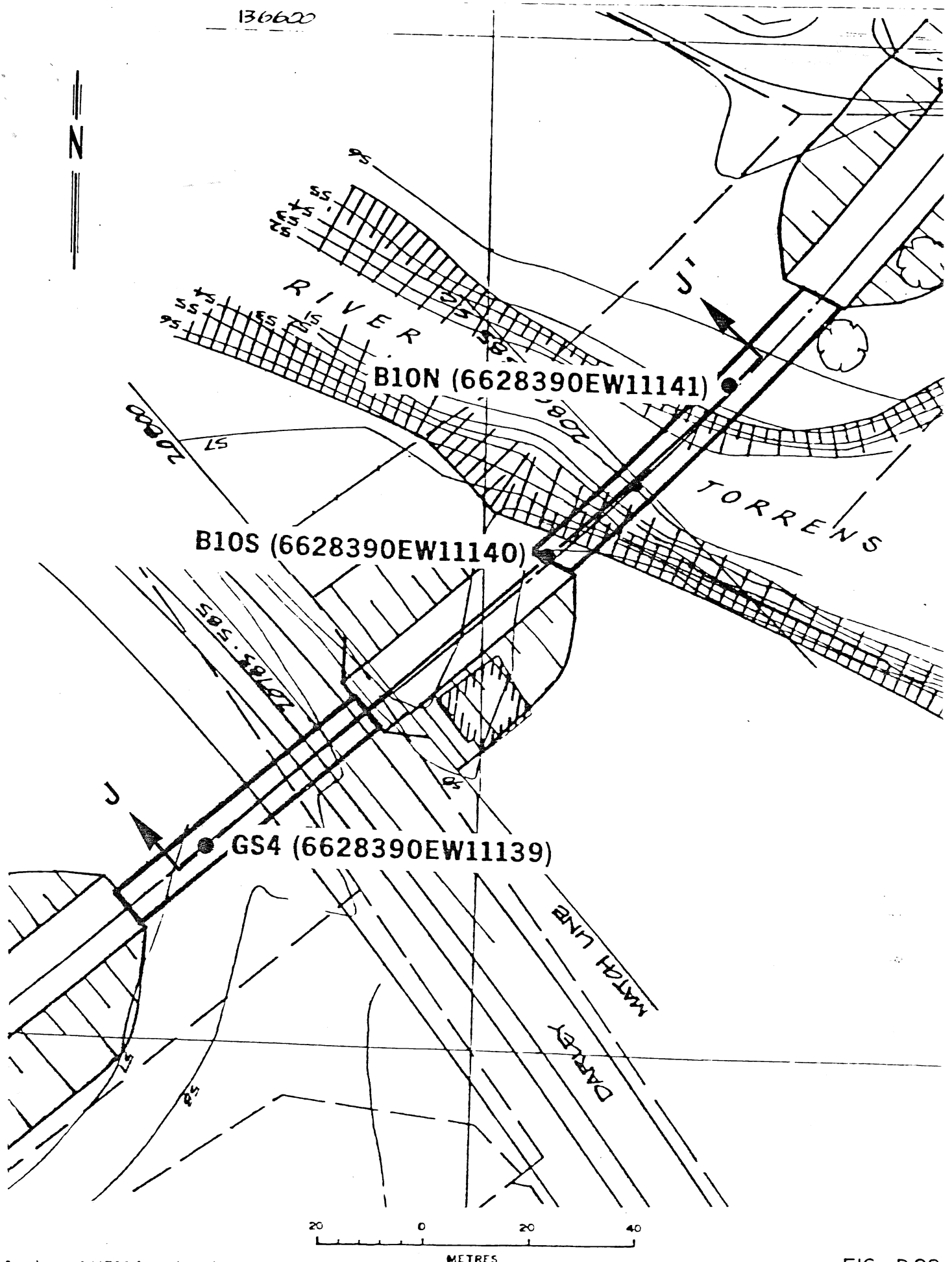
See plan no. S 14371 for location of section

Fig. D 21

DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	COMPILED J. Beal	C.D.D. DATE
NORTH EAST TRANSIT PROJECT	DRAWN M.R.	SCALE As shown
GEOLOGICAL SECTION H-H'	DATE March 1980	PLAN NUMBER S 14732
	CHECKED	

1865

136600



See plan no. S 14733 for geological section

FIG. D22

	DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	SCALE 1 : 1000
COMPILED J Beal	NORTHEAST TRANSIT PROJECT	DATE OCT 1975
DRN M.R. CKD	DRILLHOLE No. GS 4, B10S, B10N LOCALITY PLAN	PLAN NUMBER S14376

1643

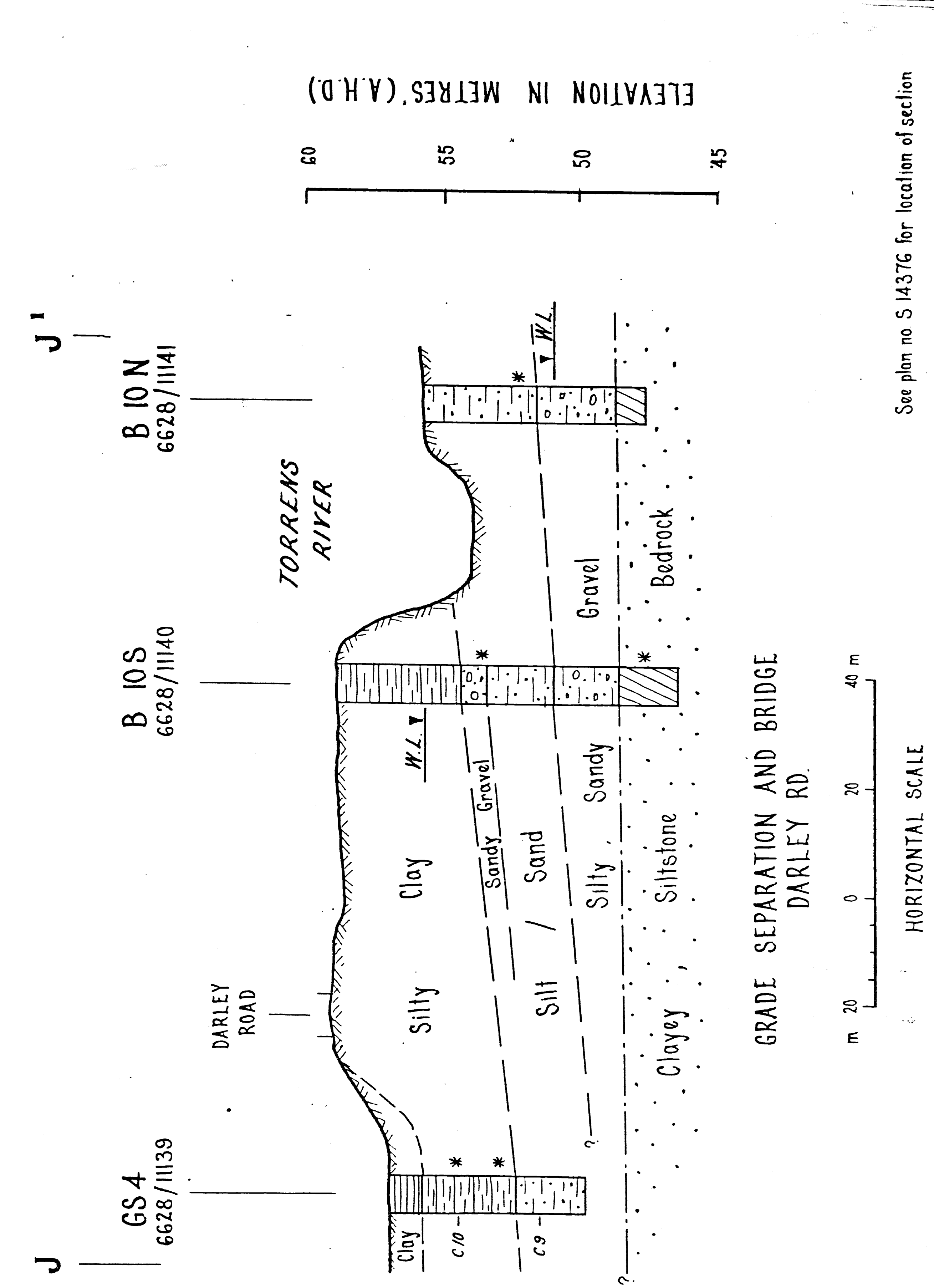


Fig. D 23

DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

NORTH EAST TRANSIT PROJECT

GEOLOGICAL SECTION J - J'

COMPILED J. Beal		DATE
DRAWN M.R.	SCALE As shown	
DATE March 1980	PLAN NUMBER S 14733	
CHECKED		

1865

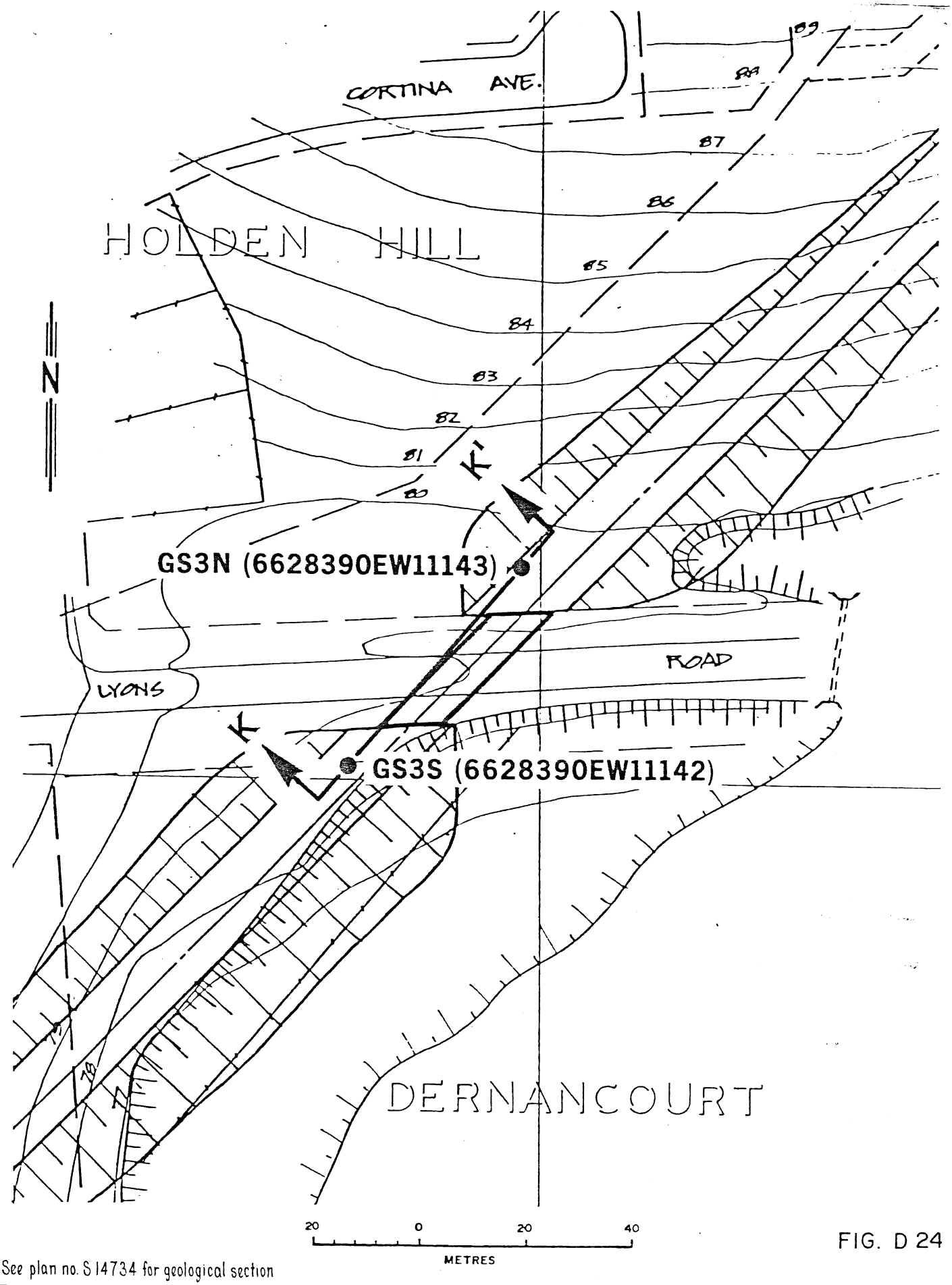
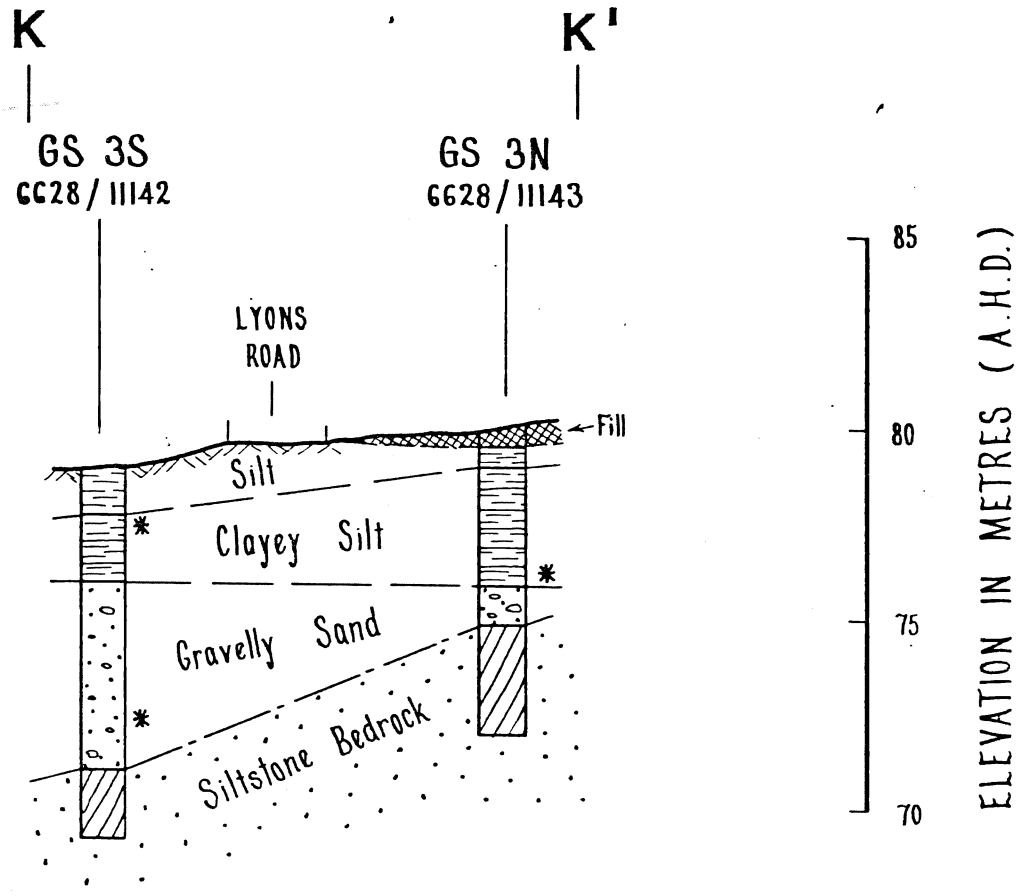


FIG. D 24

See plan no. S 14734 for geological section

	DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	SCALE 1 : 1000
COMPILED J. Beal	NORTHEAST TRANSIT PROJECT	DATE OCT. 1979
DRN M.R. CKD	DRILLHOLE No. GS 3N, GS 3S LOCALITY PLAN	PLAN NUMBER S14375

1643



GRADE SEPARATION :- LYONS ROAD

HORIZONTAL SCALE

See plan no. S 14375 for location of section

Fig. D 25

DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

NORTH EAST TRANSIT PROJECT

GEOLOGICAL SECTION K-K'

COMPILED J. Beal	C.D.O. DATE
DRAWN M.R	SCALE As shown
DATE March 1980	PLAN NUMBER S 14734
CHECKED	

1865

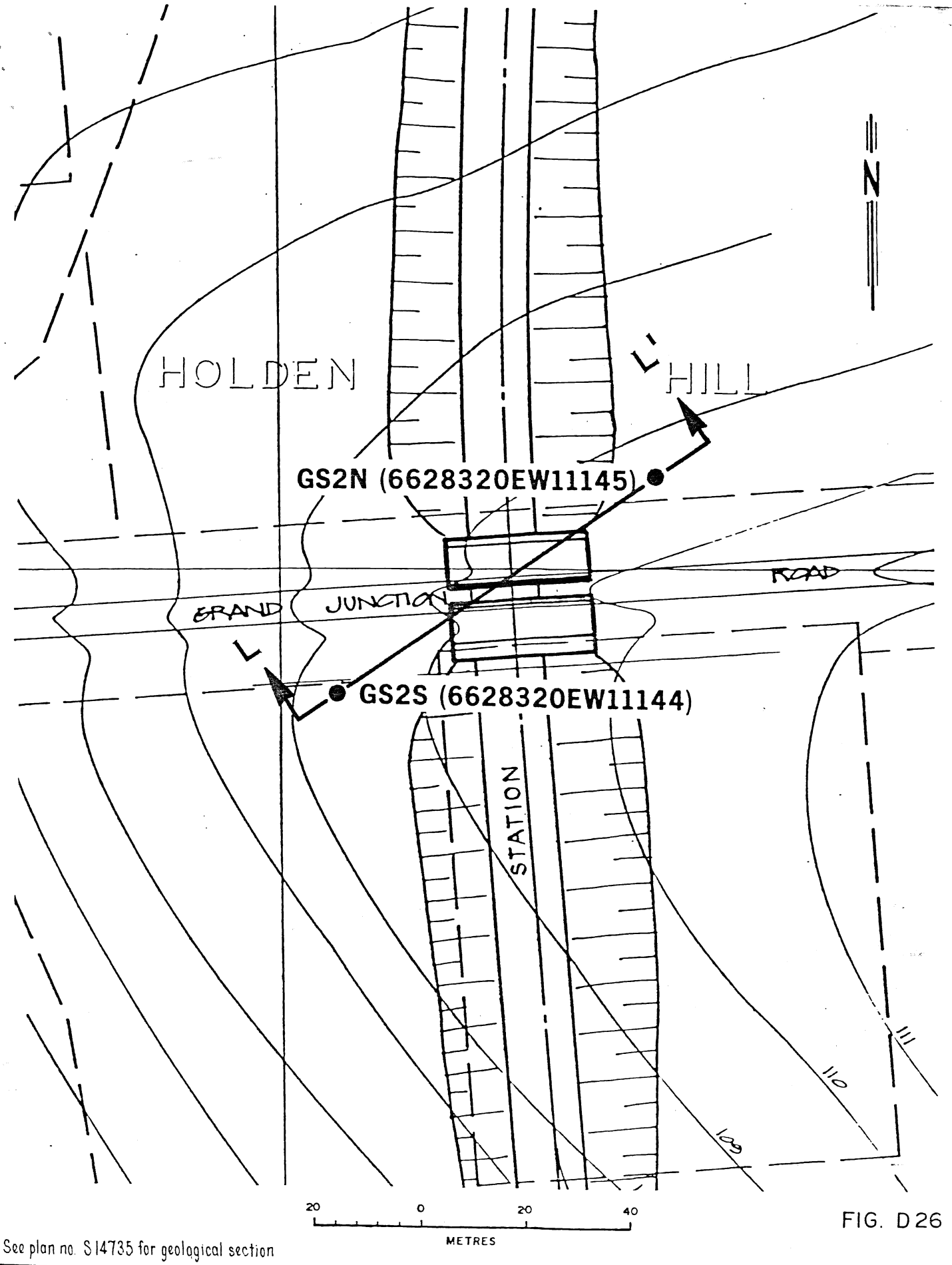
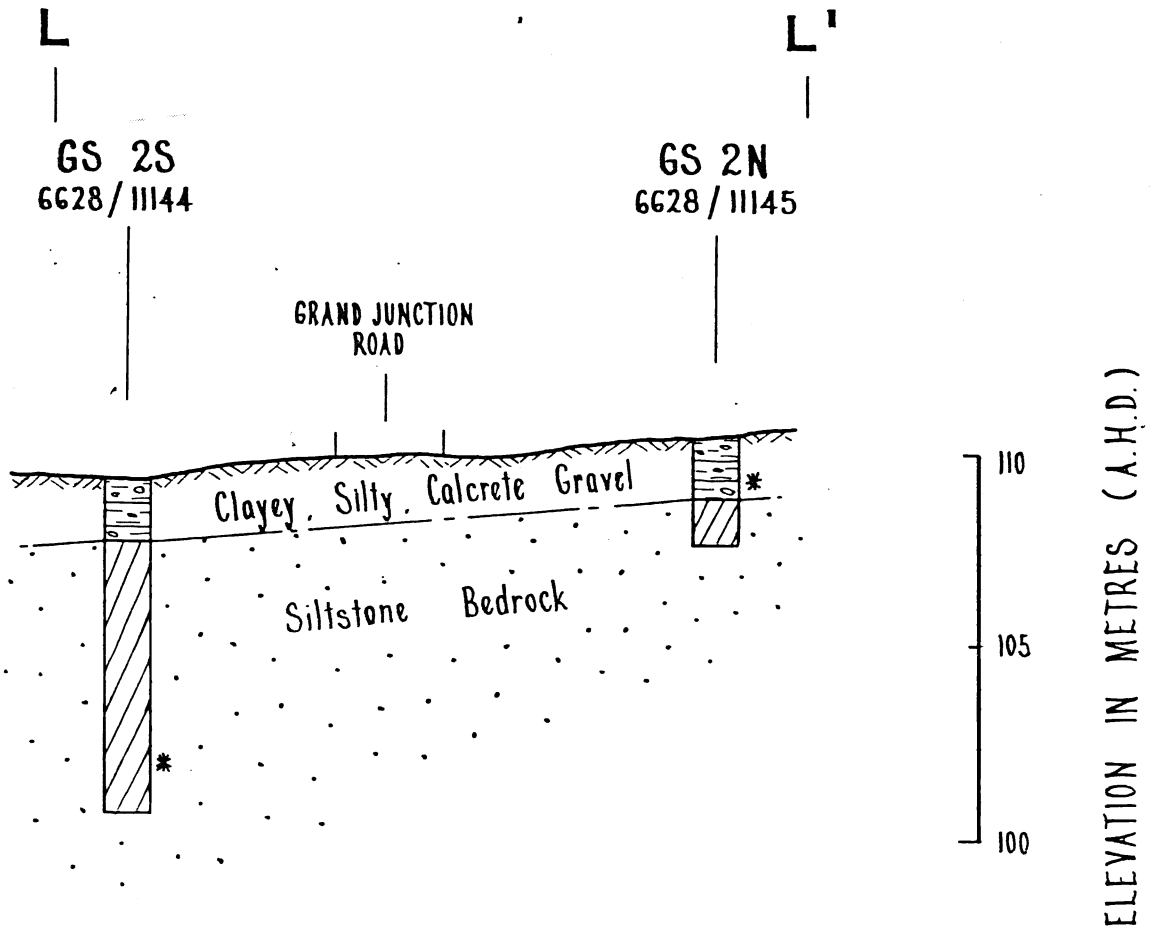


FIG. D26

See plan no. S14735 for geological section

	DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	SCALE 1 : 1000
COMPILED J. Beal	NORTHEAST TRANSIT PROJECT	DATE OCT. 1979
DRN. M.R. CKD	DRILLHOLE No. GS2N, GS2S LOCALITY PLAN	PLAN NUMBER S14374

1643



GRADE SEPARATION :- GRAND JUNCTION ROAD

m 20 0 20 40 m

HORIZONTAL SCALE

See plan no. S 14374 for location of section

Fig. D 27

DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	COMPILED J. Beal	C.D.G. DATE
NORTH EAST TRANSIT PROJECT	DRAWN M.R	SCALE As shown
GEOLOGICAL SECTION L-L'	DATE March 1980	PLAN No. S 14735
	CHECKED	

1965

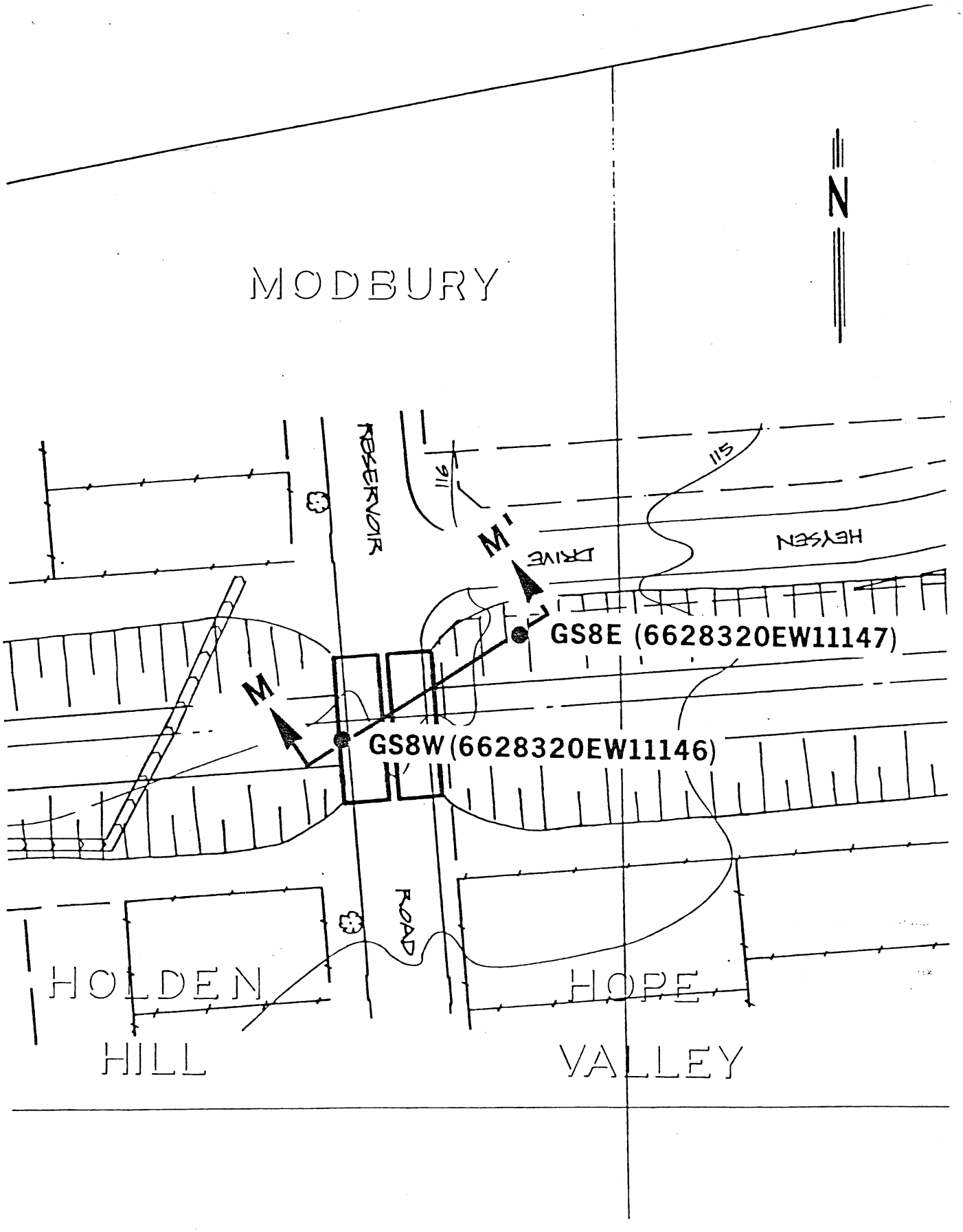
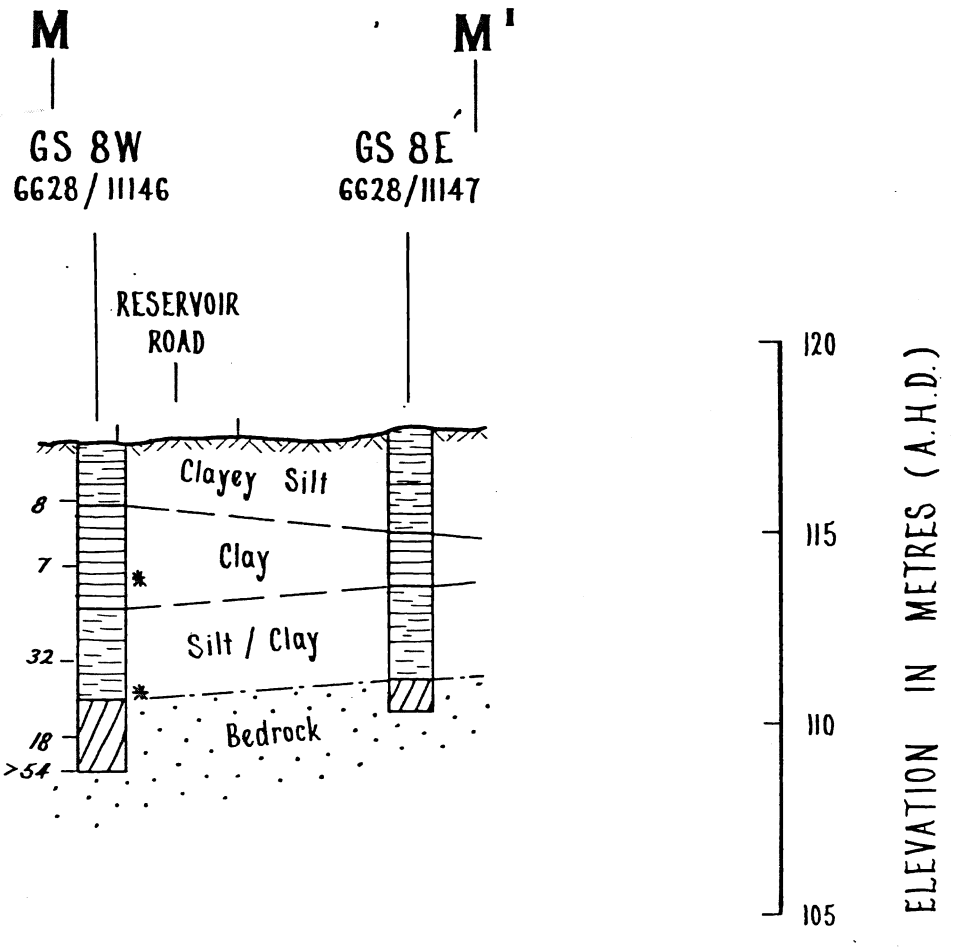


FIG. D28

See plan no. S 14736 for geological section

	DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	SCALE 1 : 1000
COMPILED J. Beal	NORTHEAST TRANSIT PROJECT	DATE OCT. 1979
DRN M.R. CKD	DRILLHOLE No. GS 8E, GS 8W LOCALITY PLAN	PLAN NUMBER S14379

1643



GRADE SEPARATION :- RESERVOIR ROAD

HORIZONTAL SCALE

m 20 0 20 40 m

See plan no S 14379 for location of section

Fig. D 29

DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

NORTH EAST TRANSIT PROJECT

GEOLOGICAL SECTION M-M'

COMPILED J Beal	C D O DATE
DRAWN M R	SCALE As shown
DATE March 1980	PLAN NUMBER S 14736
CHECKED	

1925

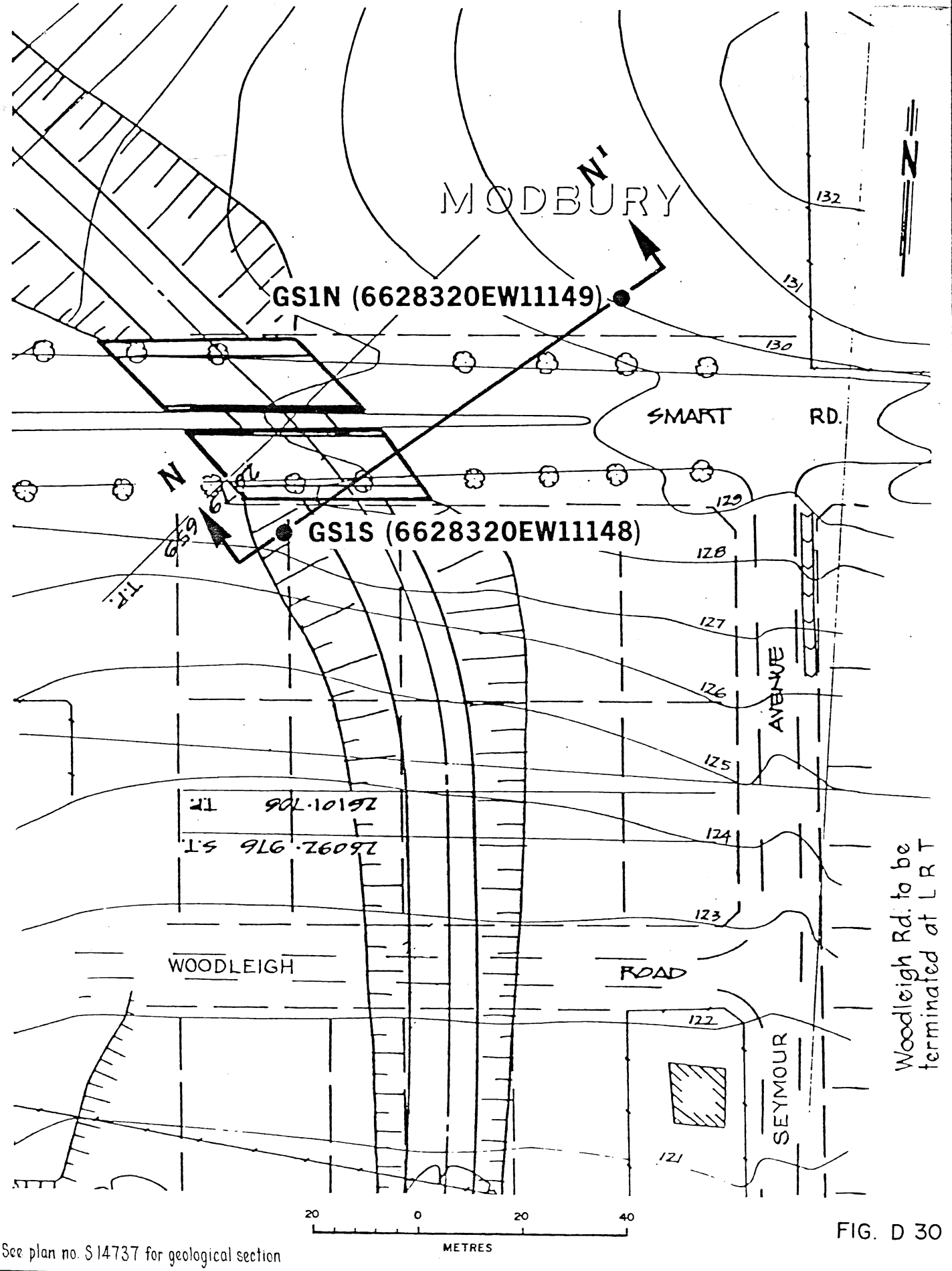
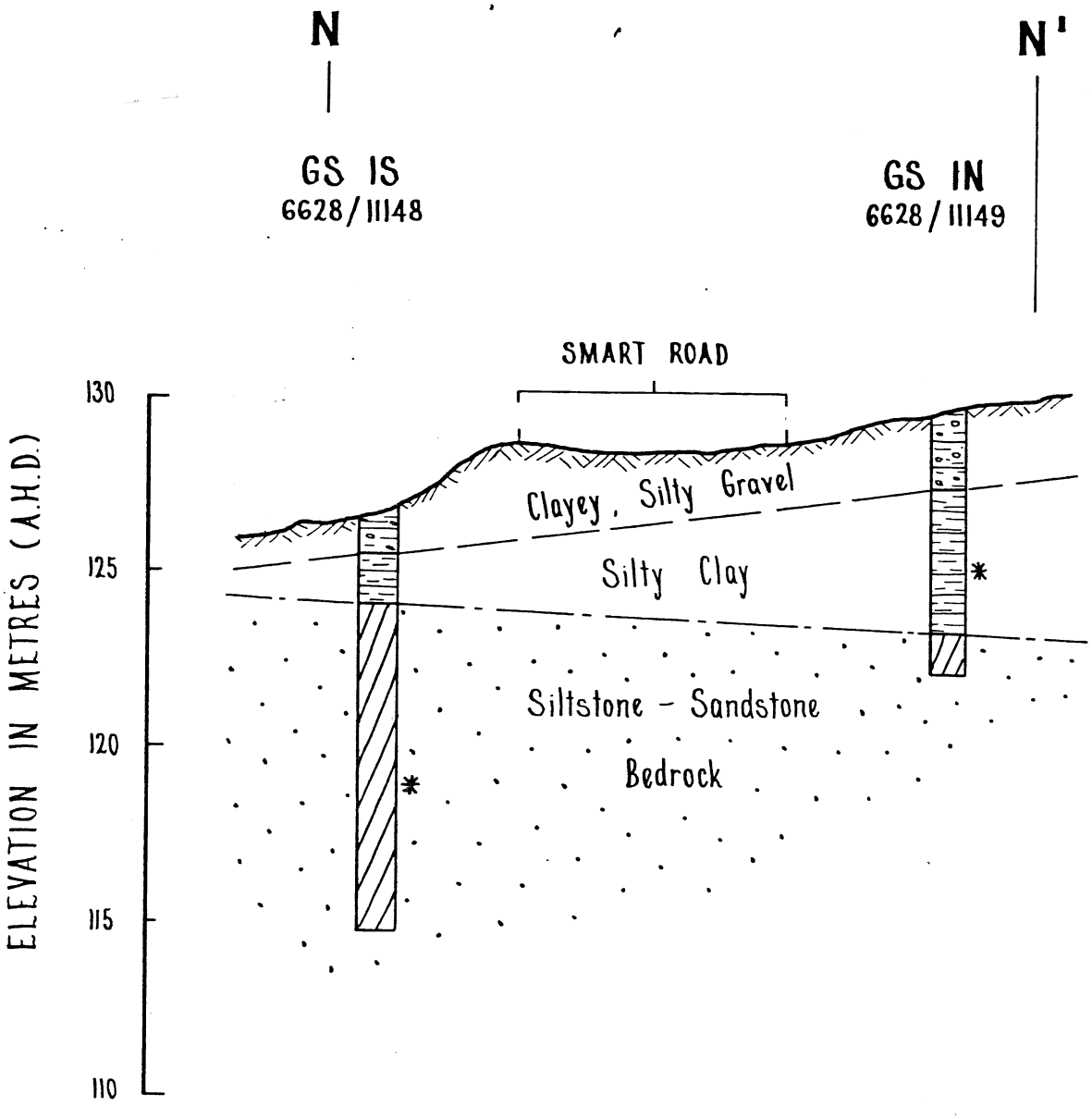


FIG. D 30

See plan no. S 14737 for geological section

	DEPARTMENT OF MINES AND ENERGY SOUTH AUSTRALIA	SCALE 1 : 1000
COMPILED J. Beal	NORTHEAST TRANSIT PROJECT	DATE OCT. 1979
DRN M.R. CKD	DRILLHOLE No. GS 1N, GS 1S LOCALITY PLAN	PLAN NUMBER S14373



GRADE SEPARATION :- SMART ROAD

See plan no. S 14373 for location of section

Fig. D 31

DEPARTMENT OF MINES AND ENERGY
SOUTH AUSTRALIA

NORTH EAST TRANSIT PROJECT

GEOLOGICAL SECTION N–N'

COMPILED J. Beal	C.D.O. DATE
DRAWN M.R.	SCALE As shown
DATE March 1980	PLAN NUMBER S 14737
CHECKED	

1885

APPENDIX E

Water Sample Analyses

CONTENTS

E 1.

DEPARTMENT OF MINES-SOUTH AUSTRALIA

WATER SAMPLE ANALYSIS ADVICE

Bore Reference. BRIDGE 1 EAST . . . . . Analysis No. W 4013/79

Hundred . ADELAIDE . . . . . Section . . . . . .

Sample collected by . J. LORING . . . . . Date . . . . . .

Depth sample taken . . m Name . NEAPTR . . . . .

Dept. Mines Results Address . . . . . .

Conductivity 4500 µS at 25°C . . . . . .

Salinity. . 2640 . mg/l To AMDEL for analysis. . . . . .

pH 6.3 . . . . . AMDEL No. . . . . .

Remarks . . . . . .

. . . . . .

. . . . . .

Unit No. . . . . Bore Folder No. . . . . .

DEPARTMENT OF MINES-SOUTH AUSTRALIA

WATER SAMPLE ANALYSIS ADVICE

Bore Reference. 131-W . . . . . Analysis No. W 4017/79

Hundred . . . . . Section . . . . . .

Sample collected by . . . . . Date . . . . . .

Depth sample taken . . m Name . NEAPTR . . . . .

Dept. Mines Results Address . . . . . .

Conductivity 3950 µS at 25°C . . . . . .

Salinity. . 2300 . mg/l To AMDEL for analysis. . . . . .

pH 7.1 . . . . . AMDEL No. . . . . .

Remarks . . . . . .

. . . . . .

. . . . . .

Unit No. . . . . Bore Folder No. . . . . .

DEPARTMENT OF MINES-SOUTH AUSTRALIA

WATER SAMPLE ANALYSIS ADVICE

Bore Reference B4W . . . . . Analysis No. W.4020/79

Hundred. . . . . Section . . . . . .

Sample collected by. . . . . Date . . . . . .

Depth sample taken . . m Name NEAPTR . . . . . .

Dept. Mines Results Address . . . . . .

Conductivity 2400 µS at 25°C . . . . . .

Salinity . 1355 . mg/l To AMDEL for analysis. . . . . .

pH 6.7 . . . . AMDEL No. . . . . .

Remarks. . . . . .

. . . . . .

. . . . . .

Unit No. . . . . Bore Folder No. . . . . .

DEPARTMENT OF MINES-SOUTH AUSTRALIA

WATER SAMPLE ANALYSIS ADVICE

Bore Reference B5E . . . . . Analysis No. W.4022/79

Hundred. . . . . Section . . . . . .

Sample collected by. . . . . Date . . . . . .

Depth sample taken . . m Name N.E.APTR . . . . . .

Dept. Mines Results Address . . . . . .

Conductivity 2600 µS at 25°C . . . . . .

Salinity . 1410 . . . . mg/l To AMDEL for analysis. . . . . .

pH . 6.7 . . . . AMDEL No. . . . . .

Remarks. . . . . .

. . . . . .

. . . . . .

Unit No. . . . . Bore Folder No. . . . . .

DEPARTMENT OF MINES-SOUTH AUSTRALIA

WATER SAMPLE ANALYSIS ADVICE

Bore Reference. B 6 . . . . . Analysis No. 3991/79

Hundred . . . . . Section . . . . . .

Sample collected by . . . . . Date . . . . . .

Depth sample taken . . m Name NEAPTR . . . . . .

Dept. Mines Results Address . . . . . .

Conductivity 2700 µS at 25°C . . . . . .

Salinity. 1530 . . mg/l To AMDEL for analysis . . . .

pH 7.5 . . . . . AMDEL No. . . . . .

Remarks . . . . . .

. . . . . .

. . . . . .

Unit No. . . . . Bore Folder No. . . . . .

DEPARTMENT OF MINES-SOUTH AUSTRALIA

WATER SAMPLE ANALYSIS ADVICE

Bore Reference B 7 . . . . . Analysis No. 3992/79

Hundred. . . . . Section . . . . . .

Sample collected by. . . . . Date . . . . . .

Depth sample taken 8.77m Name NEAPTR. . . . . .

Dept. Mines Results Address . . . . . .

Conductivity 2800 µS at 25°C . . . . . .

Salinity. 1590 . . mg/l To AMDEL for analysis. . . . . .

pH 7.1 . . . . . AMDEL No. . . . . .

Remarks. . . . . .

. . . . . .

. . . . . .

Unit No. . . . . Bore Folder No. . . . . .

DEPARTMENT OF MINES-SOUTH AUSTRALIA

WATER SAMPLE ANALYSIS ADVICE

Bore Reference B 8 W . . . . . Analysis No. W 4016/19

Hundred. . . . . Section . . . . . .

Sample collected by. . . . . Date . . . . . .

Depth sample taken . . m Name NEAPTR . . . . . .

Dept. Mines Results Address . . . . . .

Conductivity 1750 µS at 25°C . . . . . .

Salinity . 980 . mg/l To AMDEL for analysis. . . . . .

pH 7:0 . . . . . AMDEL No. . . . . .

Remarks. . . . . .

. . . . . .

. . . . . .

Unit No. . . . . Bore Folder No. . . . . .

DEPARTMENT OF MINES-SOUTH AUSTRALIA

WATER SAMPLE ANALYSIS ADVICE

Bore Reference B 8 E . . . . . Analysis No. W 4014/19

Hundred. . . . . Section . . . . . .

Sample collected by. . . . . Date . . . . . .

Depth sample taken . . m Name NEAPTR. . . . . .

Dept. Mines Results Address . . . . . .

Conductivity 1750 µS at 25°C . . . . . .

Salinity. . 980 . mg/l To AMDEL for analysis. . . . . .

pH 7:1. . . . . AMDEL No. . . . . .

Remarks. . . . . .

. . . . . .

. . . . . .

Unit No. . . . . Bore Folder No. . . . . .

DEPARTMENT OF MINES-SOUTH AUSTRALIA

WATER SAMPLE ANALYSIS ADVICE

Bore Reference. B 9 E . . . . . Analysis No. W 4021/79

Hundred . . . . . Section . . . . . .

Sample collected by . . . . . Date . . . . . .

Depth sample taken . . m Name NEAPTR . . . . . .

Dept. Mines Results Address . . . . . .

Conductivity 2150 µS at 25°C . . . . . .

Salinity. . 1210 . . . mg/l To AMDEL for analysis. . . . . .

pH 7.3 . . . . . AMDEL No. . . . . .

Remarks . . . . . .

. . . . . .

. . . . . .

Unit No. . . . . Bore Folder No. . . . . .

DEPARTMENT OF MINES-SOUTH AUSTRALIA

WATER SAMPLE ANALYSIS ADVICE

Bore Reference. B 9 W . . . . . Analysis No. W 4019/79

Hundred . . . . . Section . . . . . .

Sample collected by . . . . . Date . . . . . .

Depth sample taken . . m Name NEAPTR . . . . . .

Dept. Mines Results Address . . . . . .

Conductivity 2250 µS at 25°C . . . . . .

Salinity. . 1265 . mg/l To AMDEL for analysis. . . . . .

pH 7.4 . . . . . AMDEL No. . . . . .

Remarks . . . . . .

. . . . . .

. . . . . .

Unit No. . . . . Bore Folder No. . . . . .

DEPARTMENT OF MINES-SOUTH AUSTRALIA

WATER SAMPLE ANALYSIS ADVICE

Bore Reference. B 1.0 .NORTH . . . Analysis No. W 3995/79

Hundred . . . . . Section . . . . .

Sample collected by R.E. HALL . . Date 17/7/79 . . .

Depth sample taken 7.8 m Name NEAPTR . . . . .

Dept. Mines Results Address . . . . .

Conductivity 1700 µS at 25°C . . . . .

Salinity. . 950 . . . mg/l To AMDEL for analysis . . . . .

pH . 8.0 . . . . AMDEL No. . . . . .

Remarks . . . . . .

. . . . . .

. . . . . .

Unit No. . . . . Bore Folder No. . . . . .

Bore Reference B 1.0 SOUTH . . . Analysis No. W 3994/79.

Hundred. . . . . Section . . . . .

Sample collected by R E HALL . . Date 12/7/79 . . .

Depth sample taken 10 m Name NEAPTR . . . . .

Dept. Mines Results Address . . . . .

Conductivity 2350 µS at 25°C . . . . .

Salinity. . 1325 . . . mg/l To AMDEL for analysis. . . . . .

pH . 7.5 . . . . AMDEL No. . . . . .

Remarks . . . . . .

. . . . . .

. . . . . .

Unit No. . . . . Bore Folder No. . . . . .

Bore Reference. B 1.0 . SOUTH. . . . Analysis No. W 3993/79

Hundred . . . . . Section . . . . .

Sample collected by S.E. HALL . . Date 11/7/79 . . . .

Depth sample taken .9. m Name NEAPTR . . . . .

Dept. Mines Results Address . . . . .

Conductivity 2450 µS at 25°C . . . . .

Salinity. 1385 . . . mg/l To AMDEL for analysis. . . . . .

pH . 7.6 . . . . AMDEL No. . . . . .

Remarks . . . . . .

. . . . . .

. . . . . .

Unit No. . . . . Bore Folder No. . . . . .

DEPARTMENT OF MINES-SOUTH AUSTRALIA

WATER SAMPLE ANALYSIS ADVICE

Bore Reference GS 3 NORTH . . . Analysis No. W. 3996/79

Hundred. . . . . Section . . . . . .

Sample collected by. R E HALL . . . Date 26/7/79 . . .

Depth sample taken 4·8 m Name NEAPTR . . . . . .

Dept. Mines Results Address . . . . . .

Conductivity 5600 µS at 25°C . . . . . .

Salinity . 3380 mg/l To AMDEL for analysis. . . . . .

pH 7.6 . . . . AMDEL No. . . . . .

Remarks. . . . . .

. . . . . .

. . . . . .

Unit No. . . . . Bore Folder No. . . . . .

DEPARTMENT OF MINES-SOUTH AUSTRALIA

WATER SAMPLE ANALYSIS ADVICE

Bore Reference. GS 3 NORTH. . . Analysis No. A 13997/79

Hundred . . . . . Section . . . . . .

Sample collected by RE HALL . . . Date 26/7/79. . . .

Depth sample taken 7.35 m Name NEAPTR. . . . . .

Dept. Mines Results Address . . . . . .

Conductivity 7000 µS at 25°C . . . . . .

Salinity. . 4430 mg/l To AMDEL for analysis. . . . . .

pH 7.3. . . . . AMDEL No. . . . . .

Remarks . . . . . .

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Unit No. . . . . Bore Folder No. . . . . .

DEPARTMENT OF MINES-SOUTH AUSTRALIA

WATER SAMPLE ANALYSIS ADVICE

Bore Reference TUNNEL . T2 Analysis No. W.4018/19

Hundred . . . . . Section . . . . .

Sample collected by . . . . . Date . . . . .

Depth sample taken . . m Name NEAPTR . . . . .

Dept. Mines Results Address . . . . .

Conductivity 3100 µS at 25°C . . . . .

Salinity. 1775 mg/l To AMDEL for analysis. . . . . .

pH 7.5 AMDEL No. . . . . .

Remarks . . . . .

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Unit No. . . . . Bore Folder No. . . . . .

DEPARTMENT OF MINES-SOUTH AUSTRALIA

WATER SAMPLE ANALYSIS ADVICE

Bore Reference. T 3 . . . . . Analysis No. W.4015/19

Hundred . . . . . Section . . . . .

Sample collected by . . . . . Date . . . . .

Depth sample taken . . m Name . NEAPTR. . . . .

Dept. Mines Results Address . . . . .

Conductivity 2650 µS at 25°C . . . . .

Salinity. 1505 mg/l To AMDEL for analysis. . . . . .

pH 7.3 . . . . AMDEL No. . . . . .

Remarks . . . . .

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Unit No. . . . . Bore Folder No. . . . . .