Appendix C Test Pit Logs



1614451 E 5421080 N Richmond South Reservoir Coordinates: Project:

NZTM Tasman District Council Ref. Grid: Client:

Project No.: 5-G3104.09 R.L.: Not established

Location:

Refer Location Plan 520 Hill Street. Richmond

		520 Hill Street, Richmond						
			ဗ	ی			SOIL TESTS	
≽	ا		GRAPHIC LOG	WATER LEVEL		<u></u>	SCALA PENETROMETER _ 프	ွ
GEOLOGY	DEPTH (m)) H	ERI	(m)	DЕРТН (m)	SCALA PENETROMETER (Blows per 100mm) (KDa No. 1	SAMPLES
GEC	DEP	DESCRIPTION	GR _A	WA	R.L. (m)	띰	(Blows per 100mm) (Blows per 100mm) (CKPs) (SAN
TS		Clayey SILT, some sand, trace of gravel; greyish brown. Soft, moist, moderate plasticity. Gravel, fine; sand, fine. Organic soil with grass and fine rootlets	×—×;					
	_	[TOPSOIL]. Silty CLAY, some sand and some gravel; mottled light orange grey. Soft,	X X X X			_		
	-	moist, moderate plasticity. Gravel, fine to coarse; sand, fine. Iron oxide present.	× × ×			-		
		present.	^_					
	_	City OLAN	× × ×			_		
	-	Silty CLAY, some sand and some gravel; mottled orange grey. Firm, dry to moist, moderate plasticity. Gravel, fine to coarse; sand, fine. Iron oxide	× × ×			-		
١,	1-	common.	× _ × _ ;			1_		
ALLUVIAL	'_		× ×			'_		
ALLI	-		X X			-		
			× × ×					
	_		× —× – × —>			_		
	-		× × ×			-		
		Gravelly CLAY, some sand, some silt and trace of cobbles, orange brown.						
	_	Firm, moist, moderate plasticity. Weathered sandstone gravel, fine to coarse; sand, fine. Cobbles maximum 90mm size. Iron oxide common.				_		
	2	END OF PIT AT 2m - Target Depth Reached				2		
	-					-		
	-					-		
	_					_		
	3-					3-		
	-					-		
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	-					+		
	-					-		
	-					-		
	ec.						Date Tested: 22/06/2020	

Notes: Test pit dry

Test Methods:

Determination of the Penetration Resistance of a Soil, NZS 4402 Test 6.5.2:1988 Guideline for Hand Held Shear Vane Test, NZ Geotechnical Soc., 2001

22/06/2020 Date Tested: Excavator: 14t excavator T Fischer Tested by: Checked by: H Hendrickson



Richmond South Reservoir

Tasman District Council Client:

Project No.: 5-G3104.09

Location:

Refer Location Plan 520 Hill Street, Richmond

Coordinates: 1614451 E 5421080 N

NZTM Ref. Grid:

Not established R.L.:

PIT PHOTOGRAPH



Testpit TP_01

Notes: Test pit dry

Determination of the Penetration Resistance of a Soil, NZS 4402 Test 6.5.2:1988 Guideline for Hand Held Shear Vane Test, NZ Geotechnical Soc., 2001



1614459 E 5421121 N Richmond South Reservoir Coordinates: Project:

Tasman District Council Ref. Grid: NZTM Client:

Project No.: 5-G3104.09 R.L.: Not established

Location:

Refer Location Plan 520 Hill Street. Richmond

		520 Hill Street, Richmond									
			_O	یے ا				SOIL TE	STS		
≻	Ê		ļ Č	EVE		Ē	SCALA PENETE	OMETER	I ᡓ │		ω l
GEOLOGY	DEPTH (m)		GRAPHIC LOG	WATER LEVEL	Œ	DEPTH (m)	(Blows per 1	00mm)	AR ENG	TS E	SAMPLES
GEO	DEP	DESCRIPTION	GRA	×	R.L. (m)	PE	0 2 4 6 8 10 12	2 14 16 18 20	SHEAR STRENGTH (kPa)	OTHER TESTS	SAN
	_	Clayey SILT, some sand, trace of gravel; dark greyish brown. Soft, moist,	× — × ;			_					
TS	_	moderate plasticity. Gravel, fine. Organic soil with grass and fine rootlets [TOPSOIL].	× × ×			-					
	-		$\times \times \times$			-					
		Sandy SILT, some clay; mottled light orange grey. Firm, moist, low plasticity. Iron oxide present.	× ·× ;								
	_	non oxide present.	× ·× × .×			-					
	_		× × ×			-					
		Silty CLAY, some sand and some gravel; mottled orange grey. Firm, moist, high plasticity. Gravel, coarse, sand, fine. Iron oxide common.	× × ×								
	1—	riigh plasticity. Graver, coarse, sand, line. Iron oxide common.	<u> </u>			1-					
¥	-		× × ×			_					
ALLUVIAL			× × -								
4	_		~ × ~ ;			_					
		Sandy fine to coarse GRAVEL with some clay, some silt and trace of cobbles;	°0.00								
	_	orange brown, homogeneous. Dense; wet; well graded; subrounded to angular; moderately weathered sandstone gravel; sand, fine to coarse; silt and	0000			_		$\frac{1}{1}$			
	_	clay, low plasticity. Cobbles maximum size 110mm. Iron oxide common. Increased moisture from 1.70m.	0.00			_					
	2-	increased moisture from 1.70m.	0000	<u></u>		2-					
		END OF PIT AT 2.1m - Target Depth Reached	0,00	2m 22/06	_						
	-	END OF PITAL 2.1III - Target Depth Reached				-					
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	-					-					
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	4—					4—					
	-					-					
						4					
	-					-					
						4					
	-					-					
Not			1				Date Tested:	22/06/			

GWL at 2.00m (ground water slowly seeping into test pit).

Test Methods:

Determination of the Penetration Resistance of a Soil, NZS 4402 Test 6.5.2:1988 Guideline for Hand Held Shear Vane Test, NZ Geotechnical Soc., 2001

22/06/2020 Date Tested: Excavator: 14t excavator T Fischer Tested by: Checked by: H Hendrickson



Richmond South Reservoir

Tasman District Council Client:

Project No.: 5-G3104.09

Location:

Refer Location Plan 520 Hill Street, Richmond

Coordinates: 1614459 E 5421121 N

Ref. Grid: NZTM

Not established R.L.:

PIT PHOTOGRAPH



Testpit TP_02

GWL at 2.00m (ground water slowly seeping into test pit).

Determination of the Penetration Resistance of a Soil, NZS 4402 Test 6.5.2:1988 Guideline for Hand Held Shear Vane Test, NZ Geotechnical Soc., 2001



1614477 E 5421185 N Richmond South Reservoir Coordinates: Project:

Tasman District Council Ref. Grid: NZTM Client:

Project No.: 5-G3104.09 Not established R.L.:

Location:

Refer Location Plan 520 Hill Street, Richmond

		520 Hill Street, Richmond	1			r		
			၂ ဥ	ᆸ			SOIL TESTS	_
>5	(E		GRAPHIC LOG	WATER LEVEL		Ê	SCALA PENETROMETER	<u>,</u>
GEOLOGY	DЕРТН (m)		H	TER.	R.L. (m)	DEPTH (m)	(Blows per 100mm) (KPa) (MPa) (BIOWS PER NGT) (WAMPLES (APPLE NGT) (WAMPLES (APPLES NGT) (WAMPLES NG	i :
GEC	DEF	DESCRIPTION	GR/	.WA	R.L.	DEF	SCATA DENELEM (Blows ber 100mm) STRENGTH (COTHER TS) OT THE R (COTHER TS	
		Clayey SILT, some sand and trace of gravel; greyish brown. Soft, dry to moist, low plasticity. Gravel, fine. Organic soil with grass and fine rootlets [TOPSOIL].	× — ×			_		
	_	low plasticity. Graver, line. Organic soil with grass and line rootiets [TOF SOIL].	$\times \times -$			_		
TS	-		x <u>x</u> x			-		
			* * *					
	-	Sandy SILT, trace of clay; mottled light orange grey. Firm to stiff, dry,	× ×			_		
	-	non-plastic. Iron oxide present.	× × ×			-		
		Gravel trench with red tile drain pipe intercepted at 0.80m depth. Drain pipe is 130/95mm (OD/ID) and 300mm long segments. Appears to be the end of the	× . × .					
	1-	drain pipe, as not possible to trace pipe on other side of test pit.	× × ×			1-		
	+	Sandy SILT, trace of gravel; mottled orange grey. Soft to firm (softer towards	× × · ·			_		
'AL		the base with increased moisture), moist, low plasticity. Gravel, medium. Iron oxide common.	××××					
ALLUVIAL	_	oxide common.	×××			_		
₹	_		× . × .			-		
			×··×·					
	-	Clause fine to seems CDAVEL with some and some silt and some scholar.	× · × · · · · · · · · · · · · · · · · ·			_		
	-	Clayey fine to coarse GRAVEL with some sand, some silt and some cobbles; orange brown. Dense; wet; well graded; subrounded to angular, moderately to	0-00	_		-		
	2-	highly weathered sandstone gravel; sand, fine; silt and clay, low to moderate plasticity. Iron oxide common [weathered MOUTERE GRAVELS].		2m 22/06		2-		
	_	END OF PIT AT 2.1m - Target Depth Reached		22,00		_		
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	-					-		
							Data Tantally 22/06/2020	

GWL at 2.00m (ground water seeping into test pit).

Test Methods:

Determination of the Penetration Resistance of a Soil, NZS 4402 Test 6.5.2:1988 Guideline for Hand Held Shear Vane Test, NZ Geotechnical Soc., 2001



Richmond South Reservoir

Tasman District Council Client:

Project No.: 5-G3104.09

Location:

Refer Location Plan 520 Hill Street, Richmond

Coordinates: 1614477 E 5421185 N

Ref. Grid: NZTM

Not established R.L.:

PIT PHOTOGRAPH



Testpit TP_03

GWL at 2.00m (ground water seeping into test pit).

Determination of the Penetration Resistance of a Soil, NZS 4402 Test 6.5.2:1988 Guideline for Hand Held Shear Vane Test, NZ Geotechnical Soc., 2001



1614442 E 5421165 N Richmond South Reservoir Coordinates: Project:

NZTM Tasman District Council Ref. Grid: Client:

Project No.: 5-G3104.09 Not established R.L.:

Refer Location Plan Location:

520 Hill Street, Richmond

		320 Filli Oticet, Montholid		_			SOIL TESTS
չ	(m)		GRAPHIC LOG	WATER LEVEL		Œ	SCALA PENETROMETER # ###
GEOLOGY	DEPTH (m)		RAPH	ATER	R.L. (m)	DEPTH (m)	SCALA PENETROMETER (Blows per 100mm) (Kpa) 0 2 4 6 8 10 12 14 16 18 20 (Kpa) 0 2 4 6 8 10 12 14 16 18 18 10 (Kpa) 0 2 4 6 8 10 12 14 16 18 18 10 (Kpa) 0 2 4 6 8 10 12 14 16 18 18 10 (Kpa) 0 2 4 6 8 10 12 14 16 18 18 10 (Kpa) 0 2 4 6 8 10 12 14 16 18 10 (Kpa) 0 2 4 6 8 10 12 14 16 18 10 (Kpa) 0 2 4 6 8 10 12 14 16 18 10 (Kpa) 0 2 4 6 8 10 12 14 16 18 10 (Kpa) 0 2 4 6 8 10 12 14 16 18 10 (Kpa) 0 2 4 6 8 10 12 14 16 18 10 (Kpa) 0 2 4 6 8 10 12 14
TS	_	DESCRIPTION Clayey SILT, some sand, trace of gravel; greyish brown. Soft, moist, low to moderate plasticity. Gravel, fine; sand, fine. Organic soil with grass and fine rootlets [TOPSOIL].	$\frac{\times}{\times}\frac{\times}{\times}\frac{\times}{\times}$	>	œ'	_	0 2 4 6 8 10 12 14 16 18 20 あいま ら声 あ
	- - - -	Silty CLAY, some gravel; light orange brown. Soft to firm, moist, low to moderate plasticity. Gravel, fine to coarse, angular (weathered residual clasts). Iron oxide present.	× × × × × × × × × × × × × × × × × × ×			- - - -	
MOUTERE GRAVELS	1—	Clayey fine to coarse GRAVEL with some sand, some silt and some cobbles and boulders; light orange brown, indistinctly bedded. Dense; dry; well graded; bedding, sub-horizontal, moderately thick; subrounded to angular, moderately weathered sandstone gravel; sand, fine; silt and clay, low plasticity. Boulders maximum 260mm size [MOUTERE GRAVELS].				- 1- - -	
MOUT	- - -					- - -	
	2-					_ 2 _	
	_ _ _	END OF PIT AT 2.1m - Target Depth Reached				_	
	_ _ _					_	
	- - 3-					- - 3-	
	- - -					_ _ _	
	- - -					-	
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	4					4 - - -	
	_ _ _					-	
	- -					-	
	-					_	00/00/2000
Not	es: pit dry						Date Tested: 22/06/2020

Notes: Test pit dry

Test Methods:

Determination of the Penetration Resistance of a Soil, NZS 4402 Test 6.5.2:1988 Guideline for Hand Held Shear Vane Test, NZ Geotechnical Soc., 2001

Excavator: 14t excavator T Fischer Tested by: Checked by: H Hendrickson



Richmond South Reservoir

Tasman District Council Client:

Project No.: 5-G3104.09

Location:

Refer Location Plan 520 Hill Street, Richmond

Coordinates: 1614442 E 5421165 N

NZTM Ref. Grid:

Not established R.L.:

PIT PHOTOGRAPH



Testpit TP_04

Notes: Test pit dry

Test Methods:

Determination of the Penetration Resistance of a Soil, NZS 4402 Test 6.5.2:1988 Guideline for Hand Held Shear Vane Test, NZ Geotechnical Soc., 2001



1614431 E 5421137 N Richmond South Reservoir Coordinates: Project:

NZTM Tasman District Council Ref. Grid: Client:

Project No.: 5-G3104.09 Not established R.L.:

Refer Location Plan Location:

520 Hill Street, Richmond

		320 Filli Oticet, Moninoliu	(0)	_							s	OIL	TE	STS		
GEOLOGY	DEPTH (m)	DESCRIPTION	GRAPHIC LOG	WATER LEVEL	R.L. (m)	DEPTH (m)		CALA F	s pe	er 100	Omn	n)	1	SHEAR STRENGTH (kPa)	OTHER TESTS	SAMPLES
TS	_	Clayey SILT, some sand, trace of gravel; greyish brown. Soft, moist, moderate plasticity. Gravel, fine; sand, fine. Organic soil with grass and fine rootlets [TOPSOIL].	× × × ×	>			0 2	4 6 	8 1 	0 12 · 	14 10 	6 18 : 	20 	0000	OF	
	- - - -	Silty CLAY, some gravel; orange light brown. Soft to firm, moist, low to moderate plasticity. Gravel, fine to coarse, angular (weathered residual clasts). Iron oxide present.	× × × × × × × × × × × × × × × × × × ×			- - - -					 					
MOUTERE GRAVELS	1— — — — — — — — — — — — — — — — — — —	Clayey fine to coarse GRAVEL with some sand, some silt and some cobbles and boulders; light orange brown, indistinctly bedded. Dense; dry; well graded; bedding, sub-horizontal, moderately thick; subrounded to angular, moderately weathered sandstone gravel; sand, fine; silt and clay, low plasticity. Boulders maximum 240mm size [MOUTERE GRAVELS].				1										
		END OF PIT AT 2.1m - Target Depth Reached	0-0-0					+	1							
	3					3										
						-			ted					2020		

Notes: Test pit dry

Test Methods:

Determination of the Penetration Resistance of a Soil, NZS 4402 Test 6.5.2:1988 Guideline for Hand Held Shear Vane Test, NZ Geotechnical Soc., 2001

22/06/2020 Date Tested: Excavator: 14t excavator T Fischer Tested by: Checked by: H Hendrickson



Richmond South Reservoir

Tasman District Council Client:

Project No.: 5-G3104.09

Location:

Refer Location Plan 520 Hill Street, Richmond

Coordinates: 1614431 E 5421137 N

NZTM Ref. Grid:

Not established R.L.:

PIT PHOTOGRAPH



Testpit TP_05

Notes: Test pit dry

Test Methods:

Determination of the Penetration Resistance of a Soil, NZS 4402 Test 6.5.2:1988 Guideline for Hand Held Shear Vane Test, NZ Geotechnical Soc., 2001



1614526 E 5421265 N Richmond South Reservoir Coordinates: Project:

NZTM Tasman District Council Ref. Grid: Client:

Project No.: 5-G3104.09 R.L.: Not established

Location:

Refer Site Location plan 520 Hill Street, Richmond

		520 Hill Street, Richmond										s	OIL	. TE	STS		
	=		GRAPHIC LOG	WATER LEVEL		=	S	CAL	A PE	NE	TRO						
GEOLOGY	DEPTH (m)		PHIC	ER L	Œ	DEPTH (m)			lows						SHEAR STRENGTH (kPa)	음	SAMPLES
GEO	DEP	DESCRIPTION	GRA	WAT	R.L. (m)	DEP	0 2	2 4	6 8	3 10	0 12	14 1	6 18	20	SHE STRI (KPa	OTHER TESTS	SAM
	_	SILT, brown. Moist, very soft, high plasticity. Organic soil with grass and rootlets to 0.3 m	7 77 7 7 7 7 7			_											
(0	-		1 1/2 · 1 1/2			_				 				_			
TS			12 - 71 12 - 7			_				 							
	_		<u> </u>			_					İ			_			
		CLAY, light brown. Very soft, moist, high plasticity.				_					į	i i		_			
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VIAL	-					-		 		 							
ALLUVIAL						_					İ			_			
	-	Sandy CLAY, brown. Soft, moist, low-plasticity. Sand, well-graded.				-					İ	i i		_			
						_	İ				į	ij		1			
	_					-	į				į	ij					
						-	i										
	3-					3-	i				-						
		Sandy SILT; bluey gray with orange mottle. Soft, moist, low-plasticity.	× ·× ·>			_					-						
	_	Small amounts of vegetation noticed in hole	× ·× ; × .× ;			-											
		Official difficulties of vegetation floateed in flote	× .×			_				 							
	_		× · × · × · × · × · × · × · × · × · × ·	_		_				 							
	_	Seepage noticed in hole	· ×· › × . × . ×. ›	3.7m 21/07		-		 		 							
		END OF PIT AT 3.8m - Target Depth Reached		21/07		_		 									
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Not								LL.	Test			\perp	1/0	77/	I 2020		

Test Methods:

Determination of the Penetration Resistance of a Soil, NZS 4402 Test 6.5.2:1988 Guideline for Hand Held Shear Vane Test, NZ Geotechnical Soc., 2001

Date Tested: 21/07/2020 13t excavator Excavator: R Weston Tested by: Checked by: H Hendrickson



Richmond South Reservoir

Tasman District Council Client:

Project No.: 5-G3104.09

Location:

Refer Site Location plan 520 Hill Street, Richmond

Coordinates: 1614526 E 5421265 N

NZTM Ref. Grid:

Not established R.L.:

PIT PHOTOGRAPH



Notes:

Test Methods:

Determination of the Penetration Resistance of a Soil, NZS 4402 Test 6.5.2:1988 Guideline for Hand Held Shear Vane Test, NZ Geotechnical Soc., 2001



1614558 E 5421424 N Richmond South Reservoir Coordinates: Project:

NZTM Tasman District Council Ref. Grid: Client:

Project No.: 5-G3104.09 R.L.: Not established

Location:

Refer Site Location plan 520 Hill Street, Richmond

		520 Hill Street, Richmond						SOIL 1	ESTS		
			LOG	VEL			SCALA PENETRO				
.06	Œ		呈	H.	ε	Ē	(Blows per 100		R NGTI	ĸω	LES
GEOLOGY	DEPTH (m)	DESCRIPTION	GRAPHIC LOG	WATER LEVEL	R.L. (m)	DEPTH (m)			SHEAR STRENGTH (KPa)	OTHER TESTS	SAMPLES
		SILT with some gravels and minor sands; dark brown. Moist, soft,	\(\frac{1}{2\frac{1}{1}\frac{1}{2}}\)\(\frac{1}{2\frac{1}{1}\frac{1}{2}}\)	_	<u> </u>		0 2 4 6 8 10 12 1	16 18 20	0 0000	<u> </u>	
TS		low-plasticity. Gravel, well-graded, loosely packed, sub-rounded to rounded. Sand, fine. Organic soil with grass and rootlets [TOPSOIL].	1/ 1/1/ 1/								
	-	SILT with minor gravels and sand; light brown. Moist, soft, high-plasticity.	× × ×			-					
		Gravel; well-graded, sub-angular to sub-rounded. Traces of rootlets to a depth.	× × :								
	_		× × × :			_					
	_		× × × :			-		<u> </u>			
			× × :								
	1-	Silty fine to coarse GRAVEL with some cobbles; light brown. Dense; moist; well-graded; sub-angular to sub-rounded. Silt; soft; high plasticity. Soil	**Ox0**O:			1—					
	-	becomes saturated at 1.1 m, traces of rootlets to a depth of 1.0 m. At approx 1.8 m, trench starting collapsing (non-cohesive behavior in soil)	*0,0*0.	1.1m		-					
		1.6 m, treman starting conapsing (non-conesive penavior in son)	* \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	21/07				iii			
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	-		2 × 2			-					
		SILT with some gravels; blue. Saturated, very soft, low-plasticity. Gravels, fine,	× × :								
	_	sub-angular to angular.	× × × :			-					
	3-	Fine to coarse GRAVEL with some silt; blue. Saturated; well-graded;	°0 0 0			3-					
		sub-angular to sub-rounded. Silt, high-plasticity, firm.	0000					ii			
		END OF PIT AT 3.3m - Target Depth Reached	000								
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Not			1				Date Tested:	21/07	7/2020		

Test Methods:

Determination of the Penetration Resistance of a Soil, NZS 4402 Test 6.5.2:1988 Guideline for Hand Held Shear Vane Test, NZ Geotechnical Soc., 2001

Date Tested: 21/07/2020 13t excavator Excavator: R Weston Tested by: Checked by: H Hendrickson



Richmond South Reservoir

Tasman District Council Ref. Grid: Client:

Project No.: 5-G3104.09

Location:

Refer Site Location plan 520 Hill Street, Richmond

Coordinates: 1614558 E 5421424 N

NZTM

Not established R.L.:

PIT PHOTOGRAPH



Notes:

Test Methods:

Determination of the Penetration Resistance of a Soil, NZS 4402 Test 6.5.2:1988 Guideline for Hand Held Shear Vane Test, NZ Geotechnical Soc., 2001

21/07/2020 Date Tested: Excavator: 13t excavator R Weston Tested by: Checked by:



1614523 E 5421668 N Richmond South Reservoir Coordinates: Project:

Tasman District Council Ref. Grid: NZTM Client:

Project No.: 5-G3104.09 R.L.: Not established

Refer Site Location plan 520 Hill Street, Richmond Location:

		520 Hill Street, Richmond	1								00	,, T-	-CTC		
			90	Æ									STS		
ЭСУ	Œ		°	⟨ LE∖	٦	Ē	S		ALA PENETROMETER (Blows per 100mm)			TE	~ .	ES	
GEOLOGY	ОЕРТН (m)	DECORPORTO:	GRAPHIC LOG	WATER LEVEL	R.L. (m)	DEPTH (m)		(BIOV	ws pei	1001	rim)		SHEAR STRENGTH (kPa)	OTHER TESTS	SAMPLES
5	۵	DESCRIPTION SILT with minor gravels; dark brown. Very soft, moist, low plasticity. Organic	<u>2</u>	3	<u> </u>	Ճ	0 2	2 4 6	8 10	12 14	4 16 1	18 20	<u>∞</u> %≍	0 =	Ŝ
TS	-	soil with grass and rootlets [TOPSOIL].	1, 11, 1			-									
Ĕ			$\frac{\sqrt{l_{\ell}}}{l_{\ell}} \cdot \frac{\sqrt{l_{\ell}}}{l_{\ell}}$			_	lili		ij	ijij	į	ij			
	-	Fine to coarse GRAVELS with some silt with minor sand and trace cobbles;	0000			_		ni i							
		light brown. Loosely packed; moist; well-graded; sub-angular to sub-rounded. Trace rootlets	0000			_									
	-	nace reside	0000			_									
		Gravelly CLAY with trace cobbles; brown. Moist, high plasticity, soft. Gravel;	<u> </u>			_		 	\nearrow						
	1-	loosely packed, well-graded, sub-angular to sub-rounded.				1-									
	-					_									
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ALLUVIAL		Silty fine to coarse GRAVEL with some sand and trace cobbles and boulders; light brown. Loosely packed; moist; sub-angular to sub-rounded; coarse. Silt,	® 0 x ○ 0 x			_					į				
ΙΨ	-	soft, low plasticity. At 2.1 m soil becomes saturated.	*			-			ii		į				
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			* 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0	21101		_									
		Silty fine to coarse GRAVEL with some cobbles, minor clay and trace boulders;	\$0 × \$0			_						 			
	-	light brown. Saturated; sub-rounded to rounded; well-graded. Silt, very soft, low plasticity.	\$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$ 0			-						 			
		END OF PIT AT 2.7m - Refusal - Excavator Lifting Up	0 × 0 3					 	++	++	+				
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Redundant services encountered on initial dig. Pt moved 5 m south and repeated.

Test Methods:

Determination of the Penetration Resistance of a Soil, NZS 4402 Test 6.5.2:1988 Guideline for Hand Held Shear Vane Test, NZ Geotechnical Soc., 2001

21/07/2020 Date Tested: Excavator: 13t excavator R Weston Tested by: Checked by: H Hendrickson



Coordinates: 1614523 E 5421668 N Richmond South Reservoir

Tasman District Council Client:

Project No.: 5-G3104.09

Location:

Refer Site Location plan 520 Hill Street, Richmond

Ref. Grid: NZTM

Not established R.L.:

PIT PHOTOGRAPH



Redundant services encountered on initial dig. Pt moved 5 m south and repeated.

Test Methods:

Determination of the Penetration Resistance of a Soil, NZS 4402 Test 6.5.2:1988 Guideline for Hand Held Shear Vane Test, NZ Geotechnical Soc., 2001

Date Tested: Excavator: Tested by: Checked by:

21/07/2020 13t excavator R Weston H Hendrickson