



# TEST PIT SUMMARY SHEET

 DATE 39-07-10

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 PROJECT CLUXEWE DELTA 49005 DISTRICT NORTH ISLAND

 TEST METHOD Excavator

TEST PIT No.	SAMPLE No.	FIELD DATA								LAB DATA						SOIL CLASSIFICATION	WEIGHTED GRADATION					SUITABILITY	REMARKS																							
		OVERBURDEN DEPTH (M)	WATER TABLE DEPTH (M)	GRADATION ESTIMATE						DEPTH OF BOUNDARIES	GRADATION			SAND EQUIV.	DEGRADATION		MgSO <sub>4</sub> C% / F%	FRACTURE COUNT / MASS	BULK RELATIVE DENSITY C / F	ABSORPTION C% / F%	LAYER THICKNESS (M)			FINES	SAND	GRAVEL	75 - 150 (mm)	150 - 225 (mm)	225 - 300 (mm)	> 300 (mm)																
				FINES	SAND	GRAVEL	75 - 150 (mm)	150 - 225 (mm)	225 - 300 (mm)		> 300 (mm)	MAX. SIZE (mm)	FINES																		SAND	GRAVEL														
26	X 13576	Nil		3	47	50	5	4	1	300	1.7																																			
	X 13597			1	48	51	4	2	1	300	6.0																																			
27	X 13286	Nil		7	43	50	4	2		225	1.0																														1					
				1	47	52	6	4	1	300	1.6									GP		0.6																								
				1	99					2	1.8									SP		0.2																			PETRO ON					
	X 13283			1	47	52	6	4	1	300	6.0											4.2																								
	Lab Crush X 13283																																													
28	09, 10, 11, 12, 13	NOT DRUG																																												
4	X 13281	Nil		1	47	52	6	4	1	300	1.9																																			
	P. 60g			1	99					2	2.1																																			
	X 13282			1	46	53	5	3	2	300	6.0																																			
5		0.1		20	60	20					0.1																																			
	X 13595			4	46	50	4	1			1.8																																			
	X 13799			1	47	52	5	1			6.0																																			
	Lab Crush																																													

 0.45 / 6.5  
 61.3 / 39.1

447 / 34.6



# AGGREGATE TEST HOLE SUMMARY SHEET

PIT: CLUXEWE

DISTRICT: NORTH ISLAND

FILE No: 56035

Testpit Number	Overburden Depth	Soil Bound. (mm)	Soil Classification	Gradation of Materials							Soundness Indicator				Material at Bottom of Hole	Watertable (m)	Remarks		
				75/150 (mm)	150/225 (mm)	+ 225 (mm)	Maximum Size (mm)	Gravel	Sand	Fines	Fracture		Degrad.	Sand Equivalent				MgSO4	
											A (%)	B (%)						CA	FA
98-1	1.0	0.0/1.0	TS/ML					20	20	60								FVI	
		1.0/2.0	GP	3	1		250	63	35	2								FVI	
		2.0/6.0	GP	2			125	57	42	1						GP		WSA	
98-2	1.0	0.0/1.0	TS/ML					20	20	60								FVI	
		1.0/1.8	GP	3	1		250	64	35	1								FVI	
		1.8/2.0	SP						96	4								FVI	
		2.0/5.5	GP	2	1		175	55	44	1		83	79			GP		WSA	
98-3	0.7	0.0/0.7	TS/ML					20	20	60								FVI	
		0.7/6.0	GP	3	1		200	53	46	1						GP		Lab VI	
98-4	0.6	0.0/0.6	OG															FVI, branches,etc	
		0.6/1.5	TS/ML					20	20	60								FVI	
		1.5/6.0	GP	5	2		250	62	37	1		59				GP		Lab VI	
98-5	1.0	0.0/1.0	TS/ML					20	20	60								FVI	
		1.0/1.5	GPGM					6	35	5								FVI	
		1.5/6.0	GP	4	1	1	300	57	42	1		35	82	64		GP		WSA	
98-6	1.0	0.0/1.0	TS/ML					20	20	60								FVI	
		1.0/6.0	GP	5	2	1	300	67	32	1						GP		Lab VI	

FVI= Field Visual Identification

WSA= Washed Sieve Analysis

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Testpit Number	Overburden Depth	Soil Bound. (mm)	Soil Classification	Gradation of Materials							Soundness Indicator				Material at Bottom of Hole	Watertable (m)	Remarks		
				75/150 (mm)	150/225 (mm)	+ 225 (mm)	Maximum Size (mm)	Gravel	Sand	Fines	Fracture		Degrad.	Sand Equivalent				MgSO4	
											A (%)	B (%)						CA	FA
98-7	1.5	0.0/1.5	OG																
		1.5/1.8	ML					20	20	60									
		1.8/6.0	GP	5	2	1	275	60	39	1		62				GP			
98-8	1.0	0.0/1.0	TS/ML					20	20	60									
		1.0/5.5	GP	5	2	1	300	60	39	1									
		5.5/6.0	SP	1			75	24	75	1						SP			
98-9	1.0	0.0/1.0	TS/ML					20	20	60									
		1.0/6.0	GP	7	3	1	300	58	40	2		59				GP			
98-10	0.3	0.0/0.3	OG																
		0.3/1.0	ML					20	20	60									
		1.0/2.0	GP	7	2	1	325	61	35	4									
		2.0/6.0	GP	4	1		175	68	31	1		61				GP			
98-11	0.8	0.0/0.8	TS/ML					20	20	60									
		0.8/6.0	GP	4	1		175	54	45	1	91					GP			

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				75/150 (mm)	150/225 (mm)	+ 225 (mm)	Maximum Size (mm)	Gravel	Sand	Fines	Fracture		Degrad.	Sand Equivalent				MgSO4	
											A (%)	B (%)						CA	FA
98-12	1.2	0.0/1.2	TS/ML					20	20	60								FVI	
		1.2/5.5	GP	7	2	1	300	54	45	1								WSA	
		5.5/6.0	SP	1			50	44	55	1						SP		WSA	
98-13	0.8	0.0/0.8	TS/ML					20	20	60								FVI	
		0.8/2.3	GP	3	1		175	59	40	1								FVI	
		2.3/6.0	SP	1			100	30	69	1		46				SP		WSA	
98-14	1.0	0.0/1.0	TS/ML					20	20	60								FVI	
		1.0/2.0	GP	3	1		175	62	35	3								FVI	
		2.0/3.5	SP					14	85	1								FVI	
		3.5/6.0	SP	1			125	44	55	1						SP		FVI	
98-15	1.0	0.0/1.0	TS/ML					20	20	60								FVI	
		1.0/3.5	GP	3	1		175	64	35	1								FVI	
		3.5/6.0	SPSM	1			100	28	67	5						SPSM		FVI, Silt Balls	
98-16	1.0	0.0/1.0	TS/ML					20	20	60								FVI	
		1.0/6.0	GP	3	1		175	55	44	1			83	54		GP???		WSA, Sandier@6.0m	
98-17	1.2	0.0/1.2	TS/ML					20	20	60								FVI	
		1.2/6.0	GP	4	1	1	300	55	44	1						GP		Lab VI	

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				75/150 (mm)	150/225 (mm)	+ 225 (mm)	Maximum Size (mm)	Gravel	Sand	Fines	Fracture		Degrad.	Sand Equivalent				MgSO4	
											A (%)	B (%)						CA	FA
98-18	0.6	0.0/0.6	OG															FVI, Bark,Sticks,etc	
		0.6/1.3	ML					20	20	60								FVI	
		1.3/2.8	SC3						65	35								FVI	
		2.8/6.0	GP	6	2	1	300	67	31	2						GP		Lab VI	
98-19	1.0	0.0/1.0	TS/ML					20	20	60								FVI	
		1.0/4.0	GP	6	2	1	300	64	35	1								FVI	
		4.0/6.0	SP	2			100	47	52	1	89	33				SP		WSA	
98-20	1.0	0.0/1.0	TS/ML					20	20	60								FVI	
		1.0/3.0	GP	6	2	1	300	64	35	1								FVI	
		3.0/6.0	SP	3	1		175	47	52	1						SP		Lab VI	
98-21	0.6	0.0/0.6	TS/ML					20	20	60								FVI	
		0.6/6.0	GP	5	2	1	325	63	35	2		45				GP		WSA	
98-22	1.0	0.0/1.0	TS/ML					20	20	60								FVI	
		1.0/4.0	GP	6	2	2	325	63	35	2								FVI	
		4.0/6.0	GP	3			100	59	40	1						GP		FVI	

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# AGGREGATE TEST HOLE SUMMARY SHEET

PIT: CLUXEWE

DISTRICT: NORTH ISLAND

FILE No: 56035

Testpit Number	Overburden Depth	Soil Bound. (mm)	Soil Classification	Gradation of Materials							Soundness Indicator				Material at Bottom of Hole	Watertable (m)	Remarks		
				75/150 (mm)	150/225 (mm)	+ 225 (mm)	Maximum Size (mm)	Gravel	Sand	Fines	Fracture		Degrad.	Sand Equivalent				MgSO4	
											A (%)	B (%)						CA	FA
98-23	1.0	0.0/1.0	TS/ML					20	20	60									FVI
		1.0/4.0	GP	6	2	2	325	62	35	3									FVI
		4.0/6.0	GP	4			125	60	39	1								GP	Lab VI
98-24	1.0	0.0/1.0	TS/ML					20	20	60									FVI
		1.0/3.8	GP	6	2	1	300	63	35	2									FVI
		3.8/6.0	GP	3			100	44	55	1								GP	Lab VI
98-25	0.7	0.0/0.7	TS/ML					20	20	60									FVI
		0.7/6.0	GP	5	2	1	300	60	39	1								GP	FVI
98-26	0.8	0.0/0.8	TS/ML					20	20	60									FVI
		0.8/6.0	GP	4	1		250	52	47	1								GP???	WSA,lookd sandr@6.0
98-27	0.7	0.0/0.7	TS/ML					20	20	60									FVI
		0.7/6.0	GP	4	1		250	52	47	1								GP	WSA
98-28	0.6	0.0/0.6	TS/ML					20	20	60									FVI
		0.6/6.0	GP	5	1	1	300	56	43	1		48						GP	WSA

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PIT: CLUXEWE

DISTRICT: NORTH ISLAND

FILE No: 56035

Testpit Number	Overburden Depth	Soil Bound. (mm)	Soil Classification	Gradation of Materials							Soundness Indicator				Material at Bottom of Hole	Watertable (m)	Remarks		
				75/150 (mm)	150/225 (mm)	+ 225 (mm)	Maximum Size (mm)	Gravel	Sand	Fines	Fracture		Degrad.	Sand Equivalent				MgSO4	
											A (%)	B (%)						CA	FA
98-29	0.6	0.0/0.6	TS/ML					20	20	60								FVI	
		0.6/2.5	GP	5	1	1	375	68	28	3								FVI	
		2.5/6.0	GP	3			150	63	35	2						GP		FVI	
98-30	0.6	0.0/0.6	TS/ML					20	20	60								FVI	
		0.6/5.0	GP	6	2	1	350	68	28	4								WSA	
		5.0/6.0	GP	3			125	64	35	1						GP		FVI	
98-31	0.5	0.0/0.5	TS/ML					20	30	50								FVI	
		0.5/5.0	SC2						75	25						SC2		FVI	

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Ministry of Transportation

# TEST PIT / HOLE SUMMARY SHEET

**Pit: Cluxewe Contract Area: North Island - 3 Equipment: Excavator Date: June 22nd 2017**

Test Hole Number	Layer Thickness (m)	Layer Top Elevation (m)	Layer Bottom Elevation (m)	Soil Classification	Gradation of Materials							Soundness Indicator				Density	Absorption		Water Table Elevation (m)	Remarks						
					Gravel	Sand	Fines	75-150 mm	150-300 mm	> 300 mm	Maximum Size (mm)	Fracture		Micro Duval	Sand Eq.		MgSO4				C (%)	F (%)	C (%)	F (%)		
												A (%)	B (%)				C (%)	F (%)							C (%)	F (%)
17-01	0.7	71.5	70.8	Crush															UTM: E 632773, N 5603493							
	0.3	70.8	70.5	SP	8	90	2												FVI							
	2.5	70.5	68.0	GP	55	45	1	1	1	350									WSA							
	0.3	68.0	67.7	SM1	3	82	15												FVI							
	2.2	67.7	65.5	GP	57	41	2	3	2	1	320								Looks slightly coarser than 388, but gap graded FVI							
17-02	0.5	70.6	70.1	Crush															UTM: E 632714, N 5603473							
	0.3	70.1	69.8	SM1	0	86	14												FVI							
	2.7	69.8	67.1	GP	56	44	2	1	1	100									WSA							
	2.5	67.1	64.6	SP	8	90	2	0											FVI							
17-03	2.5	82.6	80.1	GP	72	28	1	3	2	250									UTM: E 632626, N 5603369							
	1.0	80.1	79.1	SM2															Minor water seepage at layer bottom FVI							
	2.5	79.1	76.6	GP	55	45	1			100									WSA							
17-04	6.0	83.0	77.0	SP	48	50	2	2	1	170									UTM: E 632623, N 5603412 interbedded silt seams throughout TP WSA							

BRX= Bedrock  
*Layer Elevation* = Possible Error

FVI= Field Visual Identification  
 WSA= Washed Sieve Analysis  
 LVI= Lab Visual Identification



Ministry of Transportation

# TEST PIT / HOLE SUMMARY SHEET

**Pit:** Cluxewe      **Contract Area:** North Island - 3      **Equipment:** Excavator      **Date:** June 22nd 2017

Test Hole Number	Layer Thickness (m)	Layer Top Elevation (m)	Layer Bottom Elevation (m)	Soil Classification	Gradation of Materials							Soundness Indicator					Density	Absorption		Water Table Elevation (m)	Remarks					
					Gravel	Sand	Fines	75-150 mm	150-300 mm	> 300 mm	Maximum Size (mm)	Fracture		Micro Duval	Sand Eq.	MgSO4		C (%)	F (%)			C (%)	F (%)			
												A (%)	B (%)			C (%)								F (%)	C (%)	F (%)
17-05	1.0	85.0	84.0	OB																UTM: E 632637, N 5603512 WSA						
	3.0	84.0	81.0	GP	60	39	1	2	1	1	350										WSA					
17-06	0.5	88.8	88.3	OB																UTM: E 632621, N 5603554 FVI						
	2.0	88.3	86.3	GP	64	35	1	3	2	1	350										Rounded gravel, should test fracture WSA					
	0.5	86.3	85.8	GP	70	29	1	3	2	1	300										Rounded gravel FVI					
	3.0	85.8	82.8	GP	60	39	1	3	2	1	350										Rounded gravel FVI					
17-07	1.0	98.0	97.0	OB																UTM: E 632570, N 5603443 FVI taken behind overburden pile						
	5.0	97.0	92.0	GP	66	33	1	5	4	2	350										WSA					
17-08	4.0	69.3	65.3	GP	60	39	1	1			170										UTM: E 632685, N5603435 WSA interbedded sand layers <30cm					
	2.0	65.3	63.3	SP	35	63	2	1			150										FVI					

BRX= Bedrock  
 Layer Elevation = Possible Error

FVI= Field Visual Identification  
 WSA= Washed Sieve Analysis  
 LVI= Lab Visual Identification