



KATLANTIC

ISLAND VIEW 4

QUAY SIDE INSPECTION

13 AUGUST 2018 DURBAN SOUTH AFRICA



















Document Title	Projec	t Report Fee	edback	
Document No.	FO	R - DIV - 03	33	
Revision Date	6 November 2014	Rev No.	2	

Island View 4 Quay Side Pile Inspection 13 August 2018 – 15 August 2018 SSD18-001B-032 Katlantic



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1.0 INTRODUCTION

This final report has been prepared and compiled by Heath Nicholls

2.0 SCOPE OF WORK

The scope of work consisted of diving inspections on piles beneath IV 4 quay, core samples taken on piles as well as on the quay wall or deck slab.

3.0 SUMMARY OF OPERATIONS

The following table summarises the probing sequence of operations.

Date	Time	Activity	
13.08.2018	07:30	TNPA Inductions Dive Inspection – Piles A and B	
14.08.2018	07:00	Dive Inspection – Piles C and D	
15.08.2018	07:00	Dive Core sampling	

4.0 PROJECT PLANNING and PREPARATION

4.1 Plans and Procedures

- Mobilization of team and equipment from Head office in Durban
- Port authority notification
- Equipment setup and function test
- All personnel will adhere to the client's site specific regulations as well as with Subtech's
 policies and procedures.

Subtech is an IMCA registered contractor, and as such is bound to comply with IMCA regulations

4.2 Equipment Mobilisation

The plant and equipment was mobilised from Subtech Head office Subtech mobilised the following plant and equipment

- 8m Rigid Hull Inflatable Boat "ANGE" and trailer
- SSDE SYSTEM 4251
- Double cab 4x4 Toyota Hilux. ND 598 410
- Hydraulic power pack
- 100m Hydraulic line
- Core drill
- Kia Utility. ND
- 100m water line hose



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5.0 PROJECT RESOURCES

The following resources were supplied and utilised by Subtech

5.1 Personnel

SUBTECH:

1 x Dive Supervisor-Heath Nicholls1 x Diver/skipper-Sean Hoskison1 x Diver-Carl Meyer1 x Diver-Marius Steenkamp1 x Diver-Michael Ntola

5.2 Plant and Equipment

- 8m Rigid Hull Inflatable Boat "ANGE" and trailer
- SSDE SYSTEM 4251
- Double cab 4x4 Toyota Hilux. ND 598 410
- Hydraulic power pack
- 100m Hydraulic line
- Core drill
- Kia Utility. ND
- 100m water line hose

5.3 Diving

All diving operations were carried out by SUBTECH personnel.

6.0 Conclusion

Please refer to attached document flow diagram.



East to West

	9	GHUUP						
Allocation	Pile	Spine beam default	Slab underbelly default	Pile default	Pile default Depth	Comment	Marine growth coverage	Type of fouling
Þ	0	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
, y.	(44	Surface crack, minor/cosmetic	No anomalies noted	No anomalies noted	N/A	General over view in good condition.	90 - 100FK	Soft and hard marine growth
Þ	2	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90-100%	Soft and hard marine growth
Þ	ω	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
Α	4	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
Þ	ъ	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
Α	6	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
۶	7.1	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
A	7.2	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
٨	00	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
>	9	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
>	10	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
>	Ħ	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
Α	12	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
A	13	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
Þ	14	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
A	15	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
A	16	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
A:	17	No arromalles noted	No ariomalles noted	Minor over spill	7m and 4m	General over view in good condition	3001-06	Soft and hard marine growth
Þ	18	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
Þ	19	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
Þ	20	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth



West to East

Soft and hard marine growth	N001-06	General over view in good condition	NUA	No anomalies noted	Crack line - unknown depth	No anomalies noted	7.1	(g))
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	7.2	8
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	8.1	63
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	8.2	₩
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	9.1	В
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	9.2	8
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	10.1	80
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	10.2	В
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	11.1	₽
Soft and hard marine growth	90-100%	General over view in good condition	N/A	No anomalies noted	Crack line - unknown depth.	No anomalies noted:	11.2	2
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	12.1	Б
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	12.2	æ
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	13.1	В
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	13.2	8
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	14.1	00
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	14.2	8
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	15.1	В
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	15.2	В
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	16.1	В
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	16.2	В
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	17.1	В
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	17.2	В
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	18.1	В
Type of fouling	Marine growth coverage	Comment	Pile default Depth	Pile default	Slab underbelly default	Spine beam default	Pile	Allocation
						GROUP	GR	



West to East

Soft and hard marine growth	90 -100%	650mm Length x 80mm Depth South - 740mm Length x 115mm Depth North	N/A	Cap inpact damage	Honey combing	No anomalies noted	0.1	œ
Soft and hard marine growth	90 -100%	S45mmx65mm North - 660mmx85mm West	4т	Delamination	No anomalies noted	No anomalies noted	1.1	В
Soft and hard marine growth	90 -100%	Delamination between B and C, 4 - 2M	N/A	No anomalies noted	Honey combing/Delamination	No anomalies noted	1.2	
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	1.3	8
		Aproximatlely 6mx2m surrounding area			Delamination between 8 line and C			
		Aproximatlely 1.5mx2m surrounding area			Delamination between B3 and B1			
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	Honey combing	No anomalies noted	2,1	8
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	Honey combing	No anomalies noted	2,2	æ
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	Honey combing	No anomalies noted	2.3	В
	90 -100%	General over view in good condition	N/A	No anomalies noted	Honey combing	No anomalies noted	3.1	80
	90 -100%		N/A	No anomalies noted	No anomalies noted	No anomalies noted	3.2	œ
	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	3.3	В
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	Minor delamination and honey combing	No anomalies noted	4.1	В
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	4.2	83
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	4.3	В
Soft and hard marine growth	90 -100%	General over view in good condition	N/A	No anomalies noted	Crack line - unknown depth	No anomalles noted	5.1	В
	90 -100%	General over view in good condition	N/A	No anomalies noted	No anomalies noted	No anomalies noted	5,2	В
Soft and hard marine growth	90 -100%	General over view in good condition	A/N	No anomalies noted	No anomalies noted	No anomalies noted	5.3	œ
Soft and hard marine growth	90 -100%	General over view in good condition	V/N	No anomalies noted	No anomalies noted	No anomalies noted	6.1	В
Soft and hard marine growth	90 -100%	General over view in good condition	A/N	No anomalies noted	Honey combing	No anomalies noted	6.2	8
						GROUP	GRO	



LOH IBO				East to west	west			
llocation	Pile	Spine beam default	Slab underbelly default	Pile default	Pile default Depth	Comment	Marine growth coverage	Type of fouling
С	0	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
C	1.1	Surface crack, minor/cosmetic	No anomalies noted	No anomalies noted	N/A	Gitteral over view in good condition	300T-06	Soft and hard-marine growth
С	1.2	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
С	2.1	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
e	2.2	No anomalies noted	Detamination	peron sellemone on	N/N	General over view in good condition	Sect. 06	Soft and hard marine growth
C	3.1	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
n	3.2	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
C	4,1	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
n	4.2	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
C	5,1	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
C	6.1	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
n	7.1	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
n	81	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
C	9.1	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
n	10.1	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
C	11.1	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
n	12.1	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
C	13.1	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
n	14.1	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
n	15.1	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
n	16.1	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
٥	17.1	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
n	18.1	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth





East to west

droeso	GROUP		,	East to West	West			
)°	19.1	No anomalies noted	Minor delamination	No anomalies nated	Detamination due to corresion on reinforcing	General over view in good condition	90-100%	Soft and hard marine growth
c	20.1	No anomalies noted	Minor delamination	No anomalies noted	V/N	unitiplies book of Main save (krause)	90-130%	Soft and hard marine growth
С	20.2	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
c	21.1	No anomalies noted	Minur delamination.	No anomalies noted	NA	deplace pool is Main sake (keruse)	3001-08	Soft and hard marine growth
C	21.2	No anomalies noted	Minor delamination	No anomalies noted	N/A	dedigued book of walk take judged	90-100W	Soft and hard marine growth
С	22.1	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
c	22.2	No anomalies noted	Minor delemination	No anomalies noted	N/A	General over view in good condition	90-100%	Soft and hard marine growth
c	23.1	No anomalies noted	Miltor honey combing/delamination	No infrustructure	Sase of pile	No infrustructure top of pile - No infrustructure base of pile	90-100%	Soft and hard marine growth
c	22.7	No anomalies noted	Minor honey combing/delamination	Minur delimination	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
	23.8	No anomalies noted	Minor honey combing/delamination	Minor delamination	N/A	Possible replacment pile	90 -100%	Soft and hard marine growth
c	24.1	No anomalies noted	No anomalies noted	Minor delamination	N/A	General over view in good condition	90-100%	Soft and hard marine growth



West to east

	Oncor	OF DESCRIPTION						
Allocation	Pile	Spine beam default	Slab underbelly default	Pile default	Pile default Depth	Comment	Marine growth coverage	Type of fouling
D	12	No anomalies noted	No anomalies noted	No anomalies noted	A/N	General over view in good condition	90 -100%	Soft and hard marine growth
D	11	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
D	10	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
D	9	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
D	00	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
D	7	No anomalies noted	No anomalies noted	No anomalies noted	V/N	General over view in good condition	90 -100%	Soft and hard marine growth
D	O	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
D	5	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
D	4	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
D	ω	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
D	2	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
D	1	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth
D	0	No anomalies noted	No anomalies noted	No anomalies noted	N/A	General over view in good condition	90 -100%	Soft and hard marine growth



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7.0 Photographs (if applicable)

A - Line Crack line Spine beam.



C - Line, base no infrastructure



C - Line slab and pile delamination. Group 23



C - Line Detachment



C- Line, surface no infrastructure



Delamination/Honeycombing B3 - B1





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Delamination B - C 6mx2m



Slab and Pile general overview

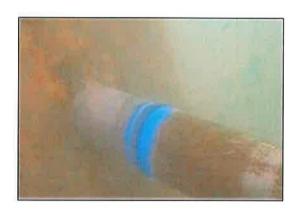


8.0 Drawings to follow.

Delamination B - C Group 2



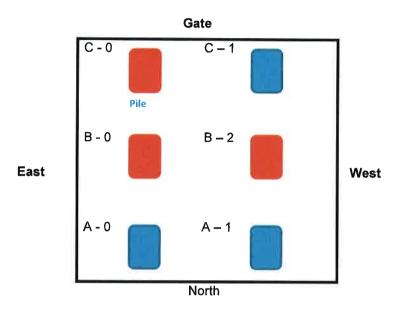
Core drilling at 5m depth





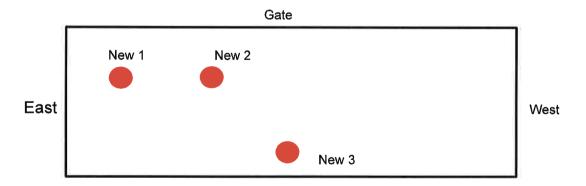
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Pile core sample allocation – East end.

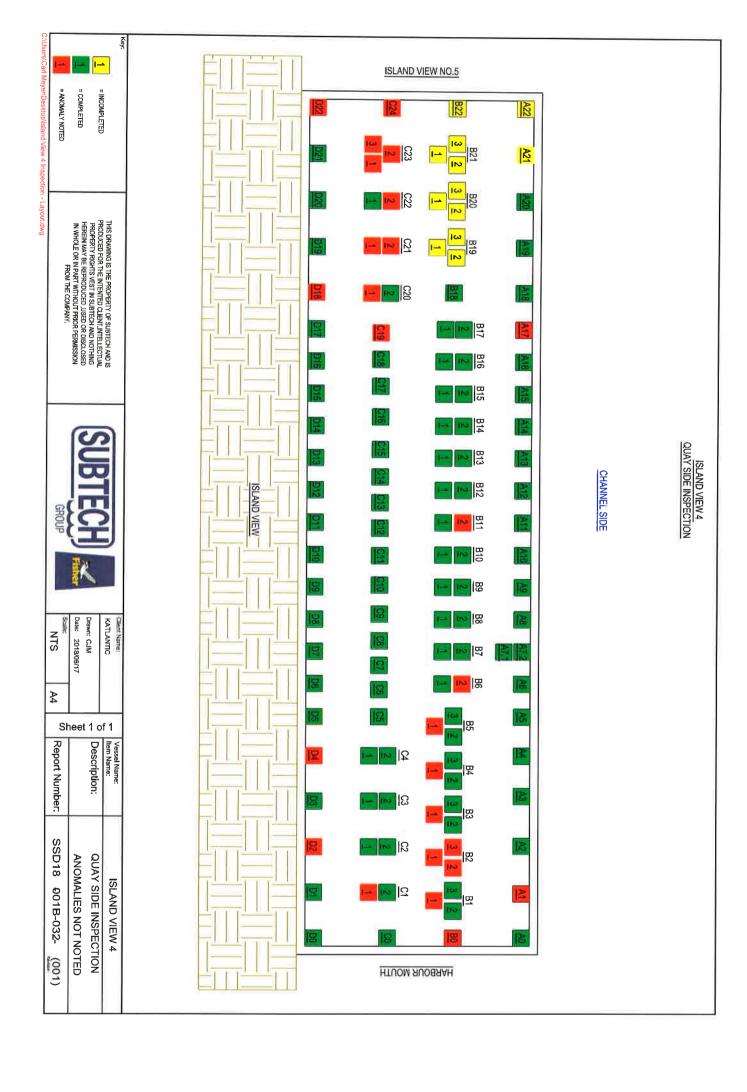


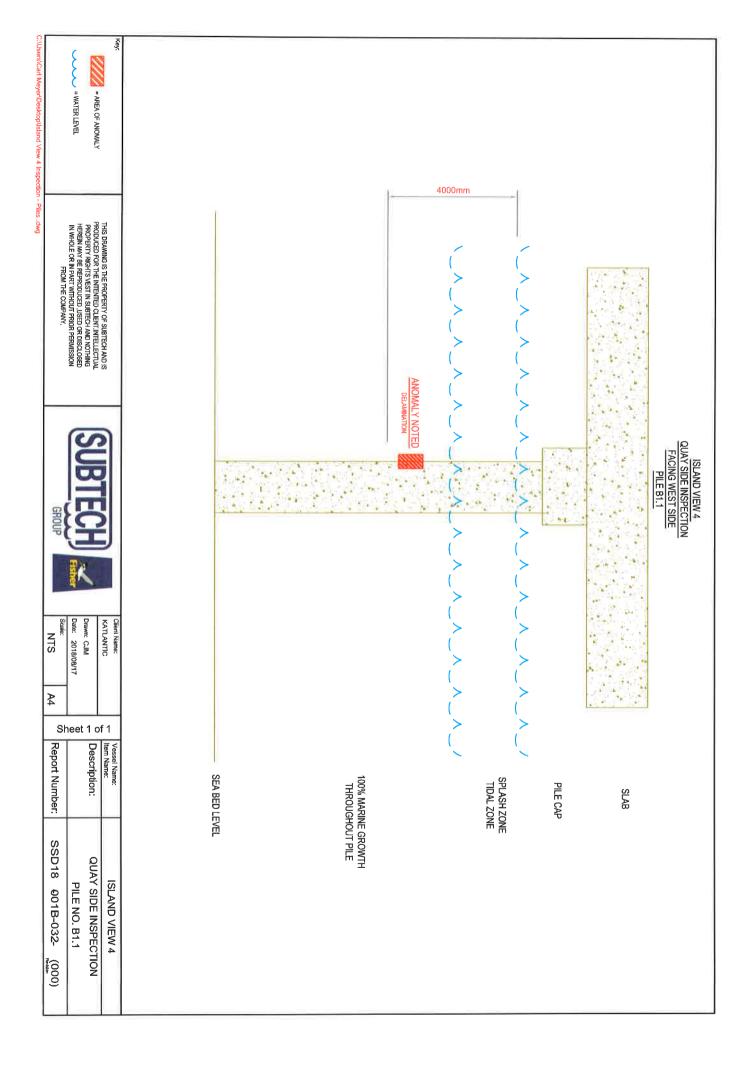
C-0.Sample taken at tidal	
B-0.Sample taken at 5m depth in water	
B-2.Sample taken at tidal	

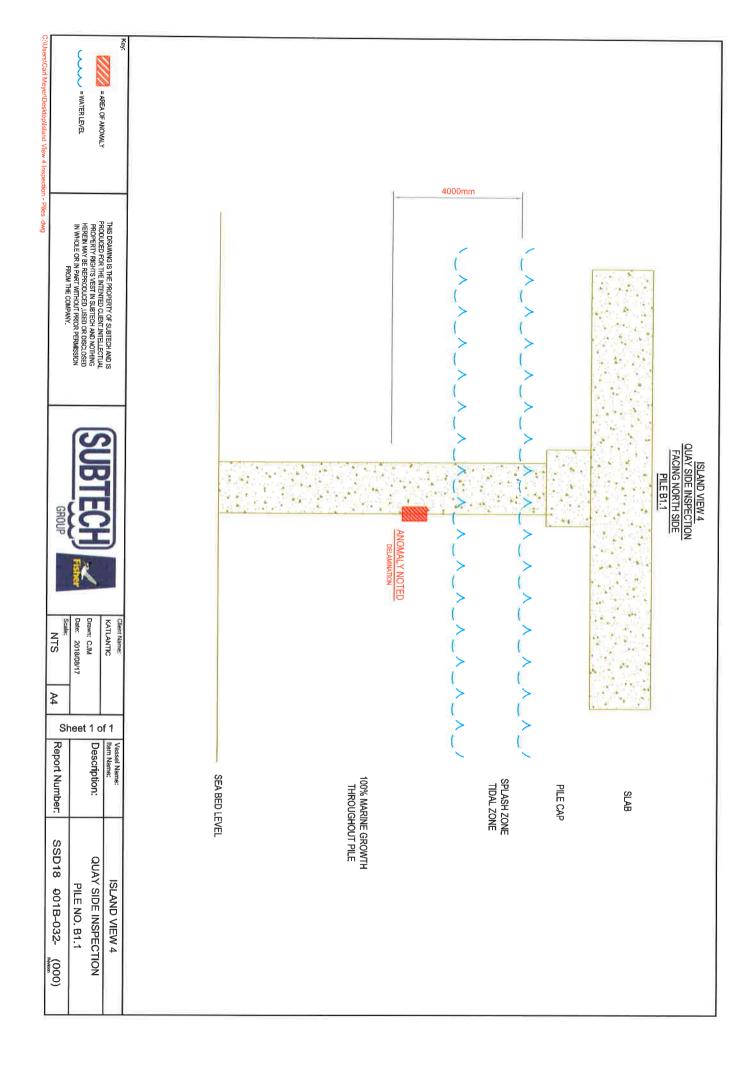
Deck slab core sample allocation

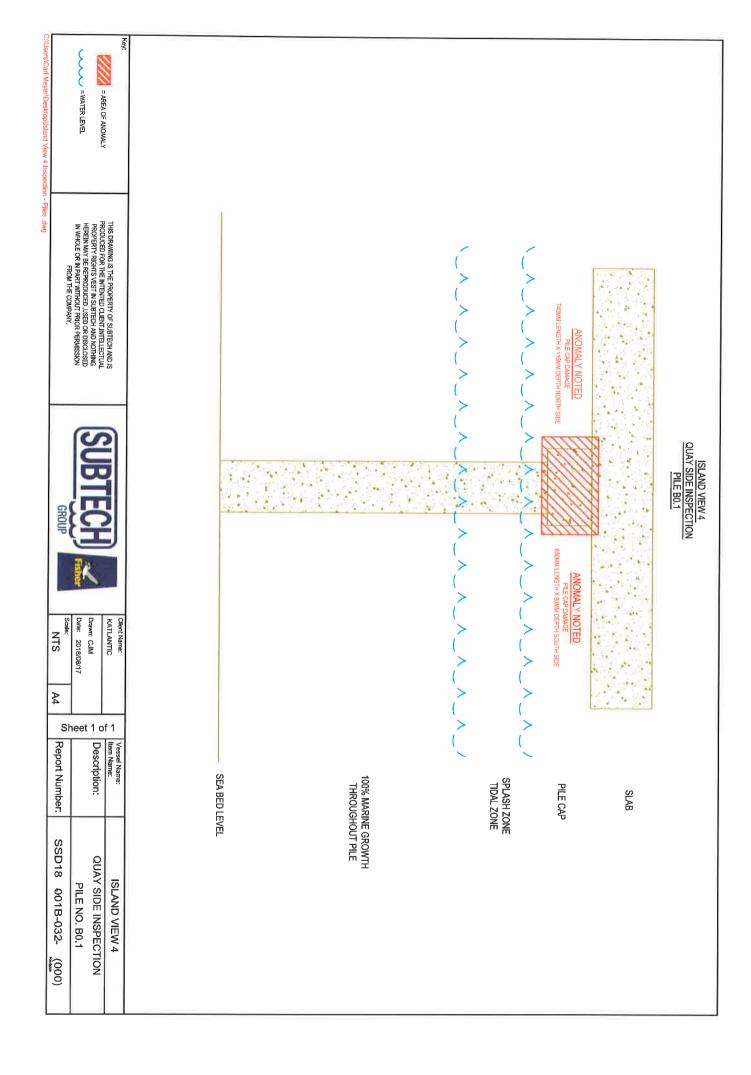


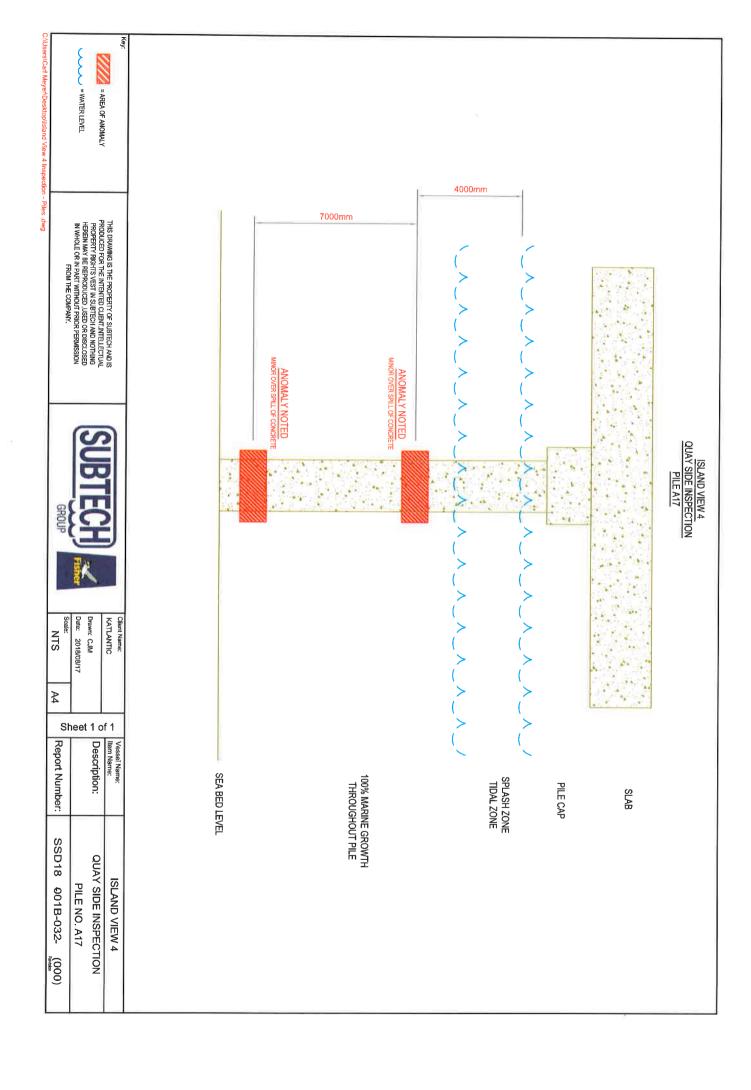
8.0 Drawings to follow.













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