This page is intentionally blank

SCOPE OF ORES In March Barch RPS Consulting Ingineers commissioned Priority Irilling PL Ion behal of their Client Bantry Bay □ arbour Commissioners □ to carry out a marine ground in □ estigation at Bantry Inner □arbour □Co Cork □The purpose o □the geotechnical ground in □estigation □as to obtain sufficient geotechnical in order to assess the suitability o the harbour or urther de elopment □ The in estigation hich as specified by RPS Consulting angineers initially comprised o iiteen □□□number cable percussion boreholes thirteen □□□number rotary cored boreholes□ sixteen □□□ number dynamic probes bathymetric sur eying all associated sampling laboratory □ork□marine sediment analysis and actual reporting□as detailed in the contract specification and bill o□□uantities□The final scope o□□orks as completed is detailed in Section IIIIIThe field ork as carried out bet een uly and August IIIII For in-gertion purposes only convicted for conviction on the required for the conviction of the convic REPORTING This report PC Rp resents the actual records on the field ork and laboratory testing □ith respect to the ground in estigation contract undertaken or the Bantry Inner

□arbour□ A separate bathymetric sur ey and sub-bottom pro ling o the bedrock □as

undertaken as outlined in report P D D August D D presented in APPENDIX B

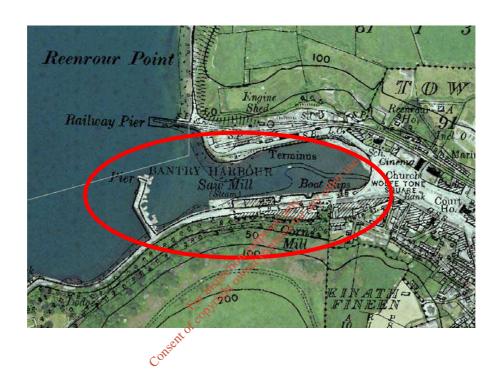
□ INTRODUCTION

PC9030_Rp_F01 1 23/03/2010

TDE SITE

SITE LOCATION DESCRIPTION

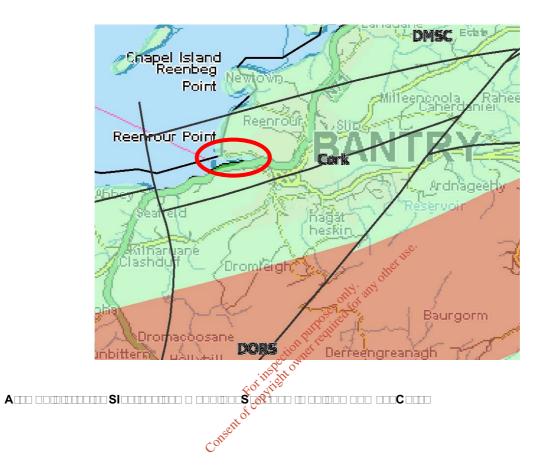
The site as ithin Bantry Inner arbour Coocork ocated bet en the existing Pier on the Nacork to Killarney Road and the Rail y Pier on the arbour Road The site as tidal ith ater depths arying from am Massate Storem to Chart atum A significant portion of the site as subject to periodic etting and drying go erned by tidal levels.



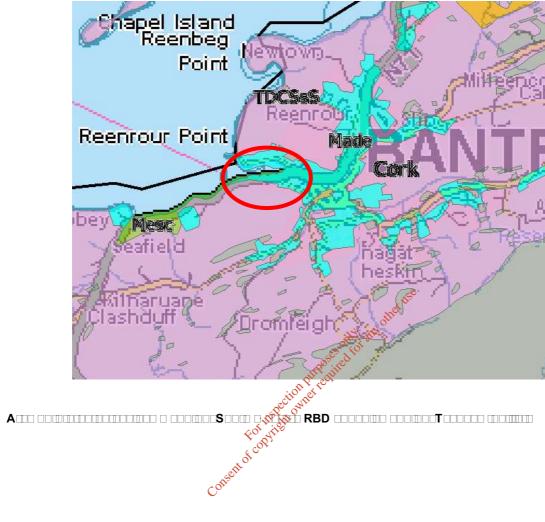


SITE | EOLO |

The Geological Sur ey o reland mapping Sheet indicated that the geology of the area as characterised by the Reenagough Member KNrg described as massife and faser bedded SAN STON.



O erburden deposits □ere expected to consist o made ground made and marine esturine



ENERAL	□□□ □ ENERAL							
The field ork □as	carried out in g	eneral accordance □it	h BS	□□□□□Code o□Practice				
or Site In estiga	tion and Part \square	o BS	Method o	Tests ⊚r Soil ⊚r Ci⊡l				
□ngineering Purpo	oses <i>⊡in situ</i> Test	ts□□etails o□the e□uip	ment and pla	ant used are presented				
belo□□The plant □	as operated Ino	m a खck up barge□A r	number o⊡od	cations □ere accessible				
at lo□ tide and □e	re undertaken or	n land□						
0	E 0000 000	Non month amba a		C				
Cable percussion Boring	□ando □□□□	□□□mm	N/A	Standard Penetration Test□ □alues and bulk samples obtained				
Rotary Boring	□eltaBase □□□	Symmetrex IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Compressed air-mist	Standard Penetration Test□ □alues and core obtained				
□ynamic Probes	Arch□ay Competitor □CPIS□□	□mm	N≀A	Super hea⊡y⊡□□≡kg drop □eight				
The exploration lo co-ordinates pro⊡		ected by RPS□and se	et out Irom ex	xisting leatures and the				
The locations □er	e subse⊡uently s	sur⊑eyed using Trimble	e □□ GPS e□	uipment to the National				
Grid system o□cc	o-ordinates □ith	ele⊡ations recorded to	Chart datur	m□These locations are				
sho n on the exploration Location Plan dra ing re PC PC presented in								
APPENDIX E □								

EXPLORATOR O	LES				
The exploratory holes as comtable □ SU□□AR O□EXPLORATO			ion are listed in the ⊚llo□ing		
T		Doom Room	Roo odo		
Cable Tool Boreholes	□No□	□□m to □□□m	Boo and Boo		
Cable Tool and Rotary Cored Boreholes	□□No□	□□m to □□□m	Boom Boom Boom Boom Boom Boom Boom Boom		
□ynamic Probes	□□No	□□m to □□□m	P P P P P P P P P P P P P P P P P P P		
Di y ditet use.					
The exploration records are	•	25° 50°			
read in conunction □ith the i	ncluded key	y sheet the records pro	o⊡de descriptions⊡based on		
engineers geologists descri	ptions o⊟the	e material encountered	in accordance □ith BS □□□□		
□□□□□together □ith any obs	For y		ation□		

 $Ground \ \Box ater \ \Box as \ recorded \ \Box hen \ encountered \ during \ boring \ \Box \ Ground \ \Box ater \ le \ \Box ere$

monitored o ☐er a period o ☐☐ minutes noting any changes that ha ☐e may occured ☐

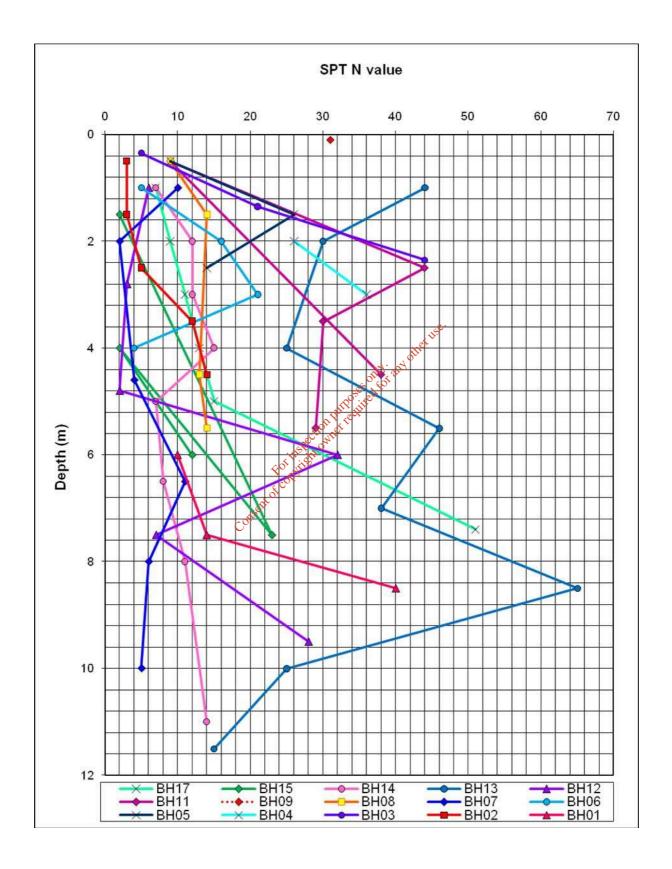
111			-		CINI	
IN	201	ΙU		EST	ΙIN	ш

Standard Penetration Test□N □alues □ere carried out in boreholes at □□□m to □□□m spacing□
The results are presented in the exploration records APPENDIX A and summarised belo \Box
□ynamic probing □as undertaken recording the blo□s per □□□mm penetration□A □CP เS□□ super hea□y rig □as used□
Grad samples □ere taken o□the harbour□marine sediment lor en □ronmental assessment and analysis□

SU AR O IN SITU TESTIN

T		RIII IIIII
Standard Penetration Test□ N	□□□No□	N ranging rom □ to □□□
□alues		□No□SPT□C□and □□No□SPT□S□
Bathymetric □ Sub-bottom Protile Sur⊑ey	-	Report re P = ==== 15°.
Grab Samples	□□No	Taken at □□m depth belo□ bed le el□
□ynamic Probing	□□No	□ m to □ s v v v v v v v v v v v v v v v v v v
		Bloostance from IIIIIImm to IIIIIImm
	Consent of copy	ight owner.

The distribution o□SPT□N □alues □ith depth□belo□ sea bed is presented belo□□



□ LABORATOR TESTIN□
All samples and core □ere transported to Priority Geotechnicals laboratory in Midleton□Co□
Cork examined and logged in accordance ith BS in the string in the strin
Priority Geotechnical and appro ed by the □ngineer □Testing □as carried out by PGL in
accordance ith BS and Methods oftest for soils for cial engineering purposes and
the ISRM suggested methods ⊚r rock characterisation testing and monitoring Triaxial
testing and oedometer consolidation testing □as undertaken by G□O Laboratory Testing
Ser⊑ices ©K□Ltd⊡in accordance □ith the rele⊡ant BS□□□□ □□□□□□□
Specialist en ironmental analysis □as undertaken on the marine sediment at UK □n ironmental Agency National Laboratory Ser ice The data is presented in APPENDIX C □
A summary o⊑tests are detailed belo□ and presented in APPENDIX C □
• • • • • • • • • • • • • • • • • • •

SOIL TESTIN SOIL TESTIN UNDERTA EN ON O ERBURDEN SOILS

SOL				
T	N	R III		
Natural Moisture Content	\$01 N	Range to to		
	* of coby			
Atterberg Limit	eir 🗆	Li Duid Limit DD to DDD		
Co		Plastic Limit under to under including NP non plastic soils		
		Plasticity Index		
Grading analysis		□No hydrometer analysis □as undertaken		
Loss on Ignition		to t		
Organic Content		to to		
Undrained Triaxial Compression		C □ □kPa □ □□kPa □ □□ery so[t] to firm□		
Shear Box		C □ □kPa to □□kPa		
		Φ		
Triaxial Compression - CU		C □ □kPa to □kPa		
		Φ \square \square to \square		
Oedometer consolidation		-		
Marine Sediment Analysis		cl□□Ⅲ o⊑Specification outlines scope o□analysis		
Marine Gedinent Analysis		Green deoperitoation outlines scope dealialysis		

ROC TESTIN

SU AR OLABORATOR TESTIN UNDERTA EN ON ROC

ROC□			
T	N	R III IIIII	
Point Load Index		□□□MPa to □□□MPa	
Uncontined Uniaxial Compressi E		□□□□MPa to □□□□MPa	
Strength□UCS			

L ROUND CONDITIONS
The site as characterised by marine estuarine deposits oslightly sandy CLA SILT slightly sandy slightly gradelly organic SILT silty gradelly SAN clayey sandy GRA clayed sandy G
P□AT □as encountered at B□□□ at a depth o□□□m bsl to □□m bsl□
Based on the Standard Penetration Test SPT N alues the cohesi e soils ere o ariable strength and described as ery soft to ery stimhaing N alues ranging from to contract the granular depoits ere described as ery loose to dense ith N alues to to
MU_STON as encountered at depths o being eak to moderately strong hading an Uncontined Compressive Strength o MPa and Point Load Indices o MPa to MPa
Interbedded MUSTON and SANSTON as encountered at depths one but but as described as being moderately each to strong hading an Unconfined Compressice Strength one MPa and Point Long Indices on MPa to MPa.
Interbedded MU_STON and LIM_STON as encountered at depths o being being moderately eak to ery strong Unconfoned Compressive Strengths o MPa to MPa and Point Load Indices o MPa to MPa
SILTSTON as encountered at depths o being eak to strong hading an Unconfined Compressive Strength o compressive St
Interbedded SILTSTON AN SAN STON as encountered at depths o some bsl to sal and as described as being moderately eak to ery strong hading Unconfined Compressive Strengths o MPa to MPa and Point Load Indices o MPa to MPa
LIMOSTONO as encountered at depths o to being moderately strong to strong a to unconfined Compressive Strengths o MPa to MPa and Point Load Indices o MPa to MPa

At B = == B == and B == the MU STON = as non-intact and highly eathered in
the upper \Box one \Box ha \Box ing Rock \Box uality \Box esignation \Box R \Box ranging \Box rom \Box D to \Box D \Box At B \Box D \Box D
the interbedded MU□STON□ and SAN□STON□ had a R□□ o□□□ □At B□□□ and B□□□□the
interbedded MU□STON□ and LIM□STON□ had a R□□ o□□□ to □□□□ At B□□□ the
${\sf SILTSTON} \ \square \ {\sf as\ non\text{-}intact\ and\ highly\ } \ \square \ {\sf eathered\ in\ the\ upper\ } \ \square \ {\sf one} \ \square \ {\sf ha} \ {\sf ing\ a\ } \ {\sf R} \ \square \ {\sf o} \ \square \square \ {\sf to}$
and Barren and Barren Barren and Barren and SILTSTON and
$SAN \squareSTON \squarehadaR\squareo\squareuouobuodddB\square\squareubdedddSILTSTON\squareudddddddd$
SAN STON and Mudstone had a R o o o to o o

SU - AR O - ROUND CONDITIONS

SIIIII EDDOOIII	R D	Localica
Slightly sandy slightly gra⊡elly CLA□	□□m to □□□m	Book Book Book Book Book Book Book Book
Slightly sandy slightly gra⊡elly SILT	□□m to □□□m	Book Book Book Book Book Book Book Book
Slightly sandy slightly gra⊡elly organic SILT	TIEM to TAME	Boom Boom Boom Boom Boom
Silty ⊑ery gra⊡elly SAN□	and the same of th	BookBookBookBookand Book
Clayey sandy GRA□□L	rips edicament to m	Boo and Booo
Slightly silty SAN AN GRADL	□□m	В□□
Silty □ery sandy GRA□□L	□□□m to □□m	Book Book Book Book Book Book Book Book
Sandy GRA□□L	□Ⅲm to □Ⅲm	BoodBoodBood and Bood
P□AT	□Ⅲm	Впп
COBBL□S	□□m to □□m	Bu and Bu
MU□STON□	□□m to □□□m	Bood Bood Bood Bood and
MU□STON□ and SAN□STON□	□□m to □□m	Boo and Boo
MU□STON□ and LIM□STON□	□□□m	Впп

		T			
Stratum Encountered	Range of Depths	Locations			
	(m)				
		BoooBoooBoooBoooBooo and			
SILTSTON	□□□□m to □□□□m	B = ===			
SILTSTON□ and SAN□STON□	□□□m to □□□m	BoooBoooBoooBoooand Booo			
SILTSTON□□SAN□STON□ and	ПППП	Вппп			
MU□STON□					
LIMUSTONU	□□m to □□□□m	Budge Budge and Budge			
Coological longitudinal agations dra	□ina rolaronoo□BC□□	DOLS A and DCDDDLS on to			
Geological longitudinal sections dra	_				
PCLShare been produced	•				
the ground conditions and should be	re⊡e□ed in conunction	op. □ith the sub-bottom profiling			
dra ings presented in APPENDIX B □					
	Ouly, any				
5.1 GROUNDWATER					
dra ings presented in APPENDIX B 5.1 GROUNDWATER Ground ater as encountered during protein at B Ground ater details are					
pro ided and presented graphically on the logs presented in APPENDIX A and summarised					
as ollos					
Cogn					

Location	Groundwater level, m bgl	Groundwater details
B 000		-

Under the scope opreporting it as required to determine the magnitude opsettlements expected at is proposed to place and morror operation of the oedometer operation consolidation test data the following settlements have been calculated a
$\Delta h \square h \times \Delta e \square \square e_o \square$
□here h is the thickness o□the strata
e is the initial ⊡oids ratio and
∆e is the change in ⊡oids ratio □

		B	В	В	В	В
e _o						
	m				4. Moth	
	m				for all	
е	□ at □□□kPa			Malife C		
Δе	%					
t	m			CMI		
Δt	mm					
TOTAL A	∖t⊡mm		150			
C	m [®] yr		N OF THE			
t _{dr}	m		nser III			
t _{□□}	yr					

t $_{dr}$ is the drainage height \square here GRA \square L layer underlies the strata the strata thickness and drainage height has been hal \square ed \square

		В	В	В	В	В	В
e _o							
	m						
	m						
е	□ at □□□kPa						
Δе	%						
t	m						
Δt	mm						
TOTAL A	∆t⊡mm						
C	m ⁻ lyr						
t _{dr}	m						
t _{□□}	yr						

		В	В	В	B
e _o					
	m				nens
	m			<i>(</i> (6)	any of
е	□ at □□□kPa			and of the	
Δе	%			DALL CALL	
t	m		O cit	MIET	
Δt	mm		a right		
TOTAL A	∆t⊡mm		to dil		
C	m ⁻ lyr		ntol		
t _{dr}	m	□ Cours			
t□	yr				

It can be seen that primary settlement can be expected to range rom unimm to unimm to
This does not include $\boxdot{o}{r}$ settlement o $\lnot{t}{h}{e}$ loose GRA $\lnot{\Box}{L}$ deposits $\lnot{\Box}{o}{\lnot}{e}{\sqsubseteq}{e}{r}$ settlement
associated \square ith these layers is expected to be minimal \square Settlement o \square the loose silty SAN \square is
expected to be o⊡the order □□□mm□
The time or □□□ consolidation is expected to be □aried□

□ Settlement o⊡silty SAN□ □□□mm□B□□□

Representation geological long sections PC Representation at the geological long sections PC Representation at the exploratory holes The exploratory locations constitute points ooknoon ground conditions The ground conditions between these knoon points have been interpreted and may be subject to rariation. The long-sections are presented in APPENDIX E and represent an interpretation oothe data obtained. These geological cross sections should be read in confunction of the sub-bottom surfey APPENDIX B and the borehole logs APPENDIX A

SU AR
The site as charactericed by cery soft to cery stimuslightly sandy slightly CLA SILT cery loose to dense silty cery gracelly SAN and clayey silty cery sandy GRA L to depths o call belo existing sea bed lecel bsl
□□ □ eak to moderately strong MU□STON□□ moderately □eak to strong interbedded MU□STON□ and SAN□STON□□ moderately □eak to □ery strong interbedded MU□STON□ and LIM□STON□□ eak to strong SILTSTON□ moderately □eak to □ery strong interbedded SILTSTON□ and SAN□STON□ and moderately strong to strong LIM□STON□□ ere encountered □rom depths o□□□□m to □□□□m bsl□
□□ Ground □ater □as encountered at a le □el o □□□□m bsl□
□ A bathymetric and sub-botton profiling sur ey □as undertaken □ The interpretation o the data is presented in APPENDIX B □ □ Laboratory testing □as undertaken to characterise the soil and rock encountered □
n Burgonite
Settlement under the proposed period of ill is expected to be bet een comm and aried across the site. The time or consolidation as highly ariable ith significant time associated ith some of the organic sediment up to spears.
□□ Marine sediment analysis □as undertaken the data is presented in APPENDIX C □
□□ A bathymetric sur □ey □as completed as part o □ the □orks and outlines the rock pro □le □Geological longitudinal sections ha □e been produced □rom the borehole data to □urther characterise the site □

This page is intentionally blank

APPENDIX A

EXPLORATOR □**OLE RECORDS**

Key
B□ □ and B□ □ □
B B B B B B B B B B B B B B B B B B B
P P P P P P P P And P P P And P P P P P P P P P P P P P P P P P P P

EPA Export 08-04-2016:00:55:19

KEY TO SYMBOLS ON EXPLORATORY HOLE RECORDS

All linear dimensions are in metres or millimetres

DESCRIPTIONS

Drillers Description Friable Easily crumbled

SAMPLES

Undisturbed 102mm diameter sample, () denotes number of blows to drive sampler U() U ()F, U ()P

F- not recovered, P - partially recovered U38 Undisturbed 38mm diameter sample

P(F), (P) Piston sample, F - not recovered, P - partially recovered

В Bulk sample - disturbed D Jar Sample - disturbed

W Water Sample

California Bearing Ratio mould sample CBR CS Chemical Sample for Contamination Analysis

Standard Penetration Test S lump sample from split sampler.

CORE RECOVERY AND ROCK QUALITY

TCR Total Core Recovery (% of Core Run) SCR

Solid Core Recovery (length of core having at least one full diameter as % of core run) Rock Quality Designation (length of solid core greater than 100mm as % of core run) ROD Where there is insufficient space for the TCR, SCR and RQD, the results may be found in the remarks column Fracture Spacing in mm (Minimum/Average/Maximum) NI - non intact, NR - no recovery

AZCL Assumed Zone of Core Loss

GROUNDWATER

 ∇ Groundwater strike V

Groundwater level after standing period of Date of shift (day/month)/Depth to water at end of previous shift shown above the date Date/Water

and depth to water at beginning of shift given below the date

INSITU TESTING

S Standard Penetration Test seplit barrel sampler Standard Penetration Test solid 60° cone C

SW Self Weight Penetration

IVp, HVp (R) In Situ Vane Test, Hand Vane Test (R) demonstrates remoulded strength K(F),(C),(R),(P)Permeability Test

Hand Penetrometer Test

MEASURED PROPERTIES

Standard Penetration Test - blows required to drive 300mm after seating drive N

x/y Denotes x blows for y mm within the Standard Penetration Test x*/y

Denotes x blows for y mm within the seating drive

Undrained Shear Strength (kN/m²) CBR California Bearing Ratio

ROTARY DRILLING SIZES

index Letter	Nominal Diar	neter (mm)
	Borehole	Core
N.	75	54
Ε Β	99	76
	120	92
3	146	113



Symbols used on Exploratory Hole Records

Key

PRIORI GEOTECHI				Priority Geoter Tel ax priorityge		caltie		Drilled By G□ □AK Logged By AM □SC	Borehole No BH01 Sheet □o□	
Pro ect N	l ame: y Inner □a	rhour		PC PC	0.		Co-ords:	Hole Type Cable Rotary		
	r Commissioners	Dates:			Level: - IIII m A	\O□	Scale			
□ ell □ □ ater Backiill Strikes	San	In Situ Testing	Casing	□ Le⊡el	□epth	Stra	atum Description	Legend		
Dackill	□epth Im□	Type SPT	Results	□lush	m AO□	ım□			in at Property 24	
		B SPTLS S U	□ blo □ s				□ith some cobbles a coarse⊑Gra⊑el is tin	o⊡n⊡silty sandy GRA⊡L and shells⊡Sand is line to le to coarse⊡angular to s are ⊡mm x ⊡mm⊡		
		SPT B SPTLS	Noo iiiigeee				□ery loose□grey⊡brc □ith many shell rag grey⊡slightly sandy Sand is the to coars coarse□angular to s	nu		
		U SPT SPTLS B	□blo□s N□□□□□□□□				□ery loose⊡bro□n□ç GRA□□L □ith occas	ong organic odour noted ☐ grey⊡ery sandy □ery silty sional cobbles and many s ine to coarse □Gra □el is	nell	
		U SPT	□blo□s N∷: □□□□□□□□				Perv soft arev sligh		is Xala Xala Xala Xala Xala Xala Xala Xal	
		B SPTLS U	□blo⊡s					ntly sandy gra⊡elly SILT and many shell	X alt 2 X X X X X X X X X X X X X X X X X X	
		SPT B	Noo iiiiissaa				Sand is one to coars coarse angular to s		~ * * * *	
		SPTLS U	⊡blo⊡s		- ion	purose puriedu	□ery solt⊡bro□n⊡gr organic SILT□Gra⊡e tine to medium□	ey⊡slightly gra⊡elly el is angular to subangular or sandy slightly gra⊡elly		
		В		For stroke			organic SILT □ith so	ome shell ragments⊐Sand el is tine to coarse□	is XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	
		SPT B SPTLS	N CONTRACTOR OF THE STATE OF TH	Course			□ery sandy organic 0 □ragments□Gra⊡el is to subangular□	ense⊡bro⊡n⊡grey⊡ery silt GRA⊡L ⊔ith some small s line to coarse⊡angular r gra⊡elly organic SILT□		
		B U SPT	N.C.				Gra⊡el is tine to coa subangular□ □irm⊡bro□n⊡grey⊡s SILT □ith many lens tine to coarse⊡Gra⊡	rse⊡angular to lightly gra⊡elly organic ses o⊡sandy gra⊡el⊡Sand i el is űne to coarse⊟	X Max X X X X X X X X X	
		SPTLS B					GRA□□L □ith some	□ery sandy □ery silty shell	ine	
		SPT	Noon (III)				subrounded⊡Cobble	ine to coarse⊡angular to ss are □□□mm x □□□mm□		
□ ater	□epth Im□	Туре	Results	Casing	Le el	□epth	Col	ntinued next sheet		
Groundwa Struck		iter Se	ealed Comment	Hole Info	Casing	□iamete mm	er Casing □epth □e	niselling: pths m Time thh to to	mm⊡ Tool Chisel	
	Remarks: lepth o later lim Cable percussion terminated at lim due to obstruction Borehole terminated at recuired depth start or Borehole lim start or Bore									
E uipment	Method	ds: □a Co	ndo ======eltaBase === mpressed air-mist]						

PRIORITY						Tel□□□ □ax□□	y Geoteo		cal∄e				⊒AK ed By	В	hole No)	
	ect N	C114C10 - XXX - 1XXX					Pro	ect No	D.					SC		et 🗆 o 🗆 e Type	_
Bantry Bay Inner □arbour					PC				Co-ords:		□□N		Cable	Rotary			
Clie	ent: B	antry Bay	□arboເ	ır Con	nmissi	oners	Date	es:]		Level: - m	AO 🗆				cale	
□ ell □	□ ater	San	nples	In Si	tu Tes	ting	1	Casing	Le el	□epth	0.0			_		Legend	\Box
Backiill	Strikes	□epth Im□	Туре		Res			□lush	™ AO□	ım 🗆			Descript			Legena	_
			CPT		or ⊞mi						Chiselled rom □□□ □ eak to moderatel interlaminated □ine SILTSTON □□□ ea Occasional clay ini □ ractures □ xtreme dip □□ to □□ degree sur aces □ □□ m - □□□m □N	ly stronge graine thering lilling olely closes lith	g grey d d SAN s Slightly in Tactures ely space planar si	STON□ and □eathered□ □ d⊡ractures			
						NImm i □mm i	a⊡g				шшm - шшт	⊡racture	e index - [
mumik.											□nd ∈	o⊡Boreho	ole at	m			
											ge.						-
								£.05	aspection	Purpose Nerrecul	only any other use.						
							Cour	For cot									
		South Co.	TCR	SCR	Rnn		cing	Casica	land	Do-#							70.00
Grou	ater indwa		IUR	JUK	IXUU	⊔racture spa	-	Casing le Info	Le⊡el rmatio	□epth n:	·	hisell	ina:				
Struc			iter S	ealed	Comm	nent	□ole		Casing		er Casing Depth	epths [m⊡	Time thhm		Tool Chisel	en 34 Bottonomone
			truction	□Boreho	ole term	inated at re			;	Shift [Data: Ground □ ater <u> </u>		d mm ÿyy	y⊡Casing de □⊞⊑m □⊞⊑m		marks t o⊑Boreł o⊡Boreh	nole ole
E uip	oment	Method				taBase □□□ mist ɪlush□											e e e e e e e e e e e e e e e e e e e

	RIOR	→ ITY NICAL			Tel□□□	y Geoteo Decirity George		calite		Drilled By G□ □AK Logged By □MC □SC	Borehole No BH02 Sheet □ o □	
		lame:			I -	ect N	э.		Co-ords:	de: nonno nonno		
Bantry Bay Inner □arbour					PC						Cable Rotary Scale	
Clie	nt: B	antry Bay [⊒arbou	ır Commissioners		-			Level: - m AO]		
□ ell □ Backtill	□ ater Strikes					Casing II Leter Deptil				n Description	Legend	
		□epth Im□	Туре	Results			III AO	J 1811	□ery loose □dark blue □bl		3.7.7.7	
			B SPT	Noo dhadaana					gra⊡elly SAN□ □ith man	y sneii ⊞agments⊔		
			□ □S						□ery loose⊡slightly silty	⊑ery sandy GRA□□L		
			В						ith many shell ragmen coarse⊡Gra⊡el is dine to			
			B U SPT	□blo□s N□□ □□□□□□□□□							* * *	
											x * .* ;	
			В						Loose⊑sandy GRA□□L i gra⊡elly clay and many s	ith lenses o⊑grey□		
			CPT	Noname					ine to coarse⊡Gra⊡el is subrounded⊡	ine to medium□		
			В						Medium dense⊡slightly s □ith many shell ragmen		L	
			CPT	Noon amminimo					coarse⊡Gra⊡el is tine to	medium subrounded) X X X X	
									otherus		* * * *	
			В						Medium dense⊑sandy G	RA□□L □ith some she to coarse□Gra⊡el is	II	
			CPT	N				purpose periodi	ine to coarse subangul	ar to subrounded□		
							ior	Set took				
			В			<u>بر</u> ا	asport of		Sandy GRA□□L □ith len and many shell ragmen	ts⊑Sand is tine to	+	
						ÇO'	Mile		coarse⊡Ĝra⊡el is ti̇̀ne to	medium [subrounded]		
					0	ent of cor						
			В		Cour				□ery dense □slightly silty □ith some shell ragmer coarse □Gra □el is tine to	nts⊡Sand is tine to		
			CPT	iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	ı 🗆				coarse_Gra_er is line to	medium_subangulai 🗆	* * *	
											× × × -	
			CPT	□□□ lor □□m m□					Chiselled rom □ m to □ ery strong dark grey to			
									SILTSTON□□ine-graine MU□STON□ □ith occas □eins□□ eathering□Sligh	ional lossils and calcite	arbonate	
									Localised oxide staining Clay intilling o ractures	on racture sur aces up to □mm think□		
									□ractures □xtremely clo predominantly non-intac □ degrees □ ith planar	t⊡ractures dip ⊞ to		
									□□□m - □□□m□ractu	co⊡ery□		
	□ ater	□epth Im□	Туре	Results		Casing	Le⊡el	□epth	Continue	ed next sheet		
Grou Struc			iter Se	ealed Comment			rmatio Casing		cr Casing □epth □epths	elling: sim Time Thhr	nm□ Tool	
						m m		mm mm		to IIII IIII	Chisel	
Rema	rks:	□epth o□□ate	er III m	Cable percussion termin	ated at	ım	[Shift D	ata: Ground⊡ater Shi⊈t	ddimmiyyyy□Casing d	depth Remarks	
				Borehole termianted at re		aepth□			- -		Start o⊡Borehole □nd o⊡shi≀t Start o⊡shi≀t □nd o⊡Borehole	
E uip	ment	Method	ds: □a	ndo □□□□□eltaBase □□ mpressed air-mist ɪlush□							⊔nd o⊡Borehole	

	RIOR)—→ ITY NICAL					Tel□□ □ax□□	y Geoted Driorityge		calite		Drilled By G□□AK Logged By □MC□SC	В	hole No
. 11 30 30 42 12		lame:					Pro	ect No) .		•			et □o□□ le Type
Ban	try Ba	ay Inner □aı	rbour				PC				Co-ords:	10000 N	Cabl	e®Rotary
Clie	nt: B	antry Bay	arbou	ır Con	nmissi	oners	Date	es:	Laamaa		Level: - m AO			Scale
□ ell □	□ ater		Rota	ary Co	oring					- anth				
Backill	Strikes	□epth Im□	TCR	SCR		□ractui	res	Casing □lush	□ Le⊡el □m AO□□	□epth □m□	Stratu	m Description		Legend
						Nlmm r □mm : □□mm	a g				□ery strong □dark grey □ SILTSTON □ □ine-grain MU□STON □ □ith occas □eins □ eathering □Slig Localised oxide staining Clay in illing o □ ractures □ ractures □ xtremely cle predominantly non-intac □ degrees □ ith planar □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	ed SAN STON and and sional lossifs and calc hitly leathered of a point of the surfaces of the	cite :	
											mm.r.	acture index - III		
	A CONTRACTOR OF THE CONTRACTOR				_			Ço ^t i o	- Bection	purposéi periequi	only any and or Bor	ehole at IIIII m		
							Colle	for ortal cod						
	□ ater		TCR	SCR	Roo	□racture spa	-	Casing	Le⊡el	□epth				
Grou Struc	k	Rose to A		ealed	Comn			e □epth □□□m □□□m	rmation Casing	□iamet mm	er Casing □epth □epth	elling: s im : Time ih to ::::::::::::::::::::::::::::::::::::		Tool Chisel
Rema E uip			truction	Boreho ando □	ole term	sion termina nianted at re ItaBase mist ∄ush□	uired	⊔⊒⊔m depth⊡		Shift C	- II - II	ddimmiyyyy Casin	Sta	emarks rt o⊡Borehole d o⊡shi∄ rt o⊡shi∄ d o⊡Borehole

PRIORI GEOTECHI				-	Priority Tel ax pri			caltie			Drilled By G□ □AK Logged By AM □SC	В	hole No H03
Pro ect N	lame:				Pro e	ect No).		Co-ords:				le Type
Bantry Ba	y Inner □a	rbour			PC				CO-orus.		LLIN		e:Rotary Scale
Client: B	antry Bay [∃arbou	r Commissi	oners	Dates	5: 			Level: - m	AO□			iiii
□ ell □ □ ater Backtill Strikes	San	nples	In Situ Tes	ting		asing [Le el	□epth	St	tratum [Description		Legend
Backillounce	□epth Im□	Туре	Res	sults		□lush	m AO□	□ m□			y sandy GRA□□L □itl	h	1115×3-71
		B SPT S S B SPTLS	N Dlo s						occasional shells Gra⊡el is fine to co subangular□ Sti⊞black⊡slightly	Sand is parse an	fine to coarse □ agular to		
		SPT	N reco						□□□m - □□□□m□C	Organic o	odour noted□		× 3/2 × × × × 3/2 × × × ×
		B SPTLS CPT B	N						□ense⊡bro□n⊡gre GRA□□L □ith occ coarse□Gra⊡el is □ to rounded□Cobble	asional of	cobbles Sand is line parse subrounded	to	
		В					-		Strong grey SILTS	STON]		
		Ш		NImm r NImm a NImm n	Constant nin a⊑g	Fot	- Inspection	Putos et i	ine-grained SANi □eathered Localis in illing or ractures □ractures □xtreme	□STONEsed oxides sed oxides sed oxides eres dip □aces□□racture□□racture□□racture□□racture□□racture	e index - NI□	tly	64 64 64 64 64 64 64 64 64 64 64 64 64 6
□ ater	□epth Im□	TCR	SCR R	□racture space	cing C	Casing	- Le el	□epth	ine-grained SANI □eathered Localis in illing o □ractures □ractures □xtrem non-intact □ ractur planar rough sur a	□STON□ sed oxide s up to □ lely close res dip □	ely spaced □ □ to □□ degrees □ith	ily	
Groundwa Struck		tor C	ealed Comr	nont			matio			Chisell		nm□	Tool
Remarks:	□epth o □□ate due to obst	erm truction	□Cable percu Borehole term	ssion termina	ated at Cuired de	□m □m		mm mm				depth Re	Chisel
E uipment	Method	d s: □a Co	ndo uuu ue mpressed air-	ItaBase □□□ mist ɪush□									

PRIORIT GEOTECHNI				Tel□□ □ax□□	y Geoted Driorityge		caltie		Drilled By G□ □AK Logged By AM □SC	Borehole BH0 Sheet □o	3
Pro ect Na					ect No	0.		Co-ords:		Hole Ty	pe
	Inner □arbo		missionors	Date	es:		_			Cable Rot Scale	
]		Level: - m AO			I
□ ell □ □ ater Backiil Strikes		Rotary Co		ctures	Casing I	Le el	□epth	Stratui	n Description	Leg	end
V(1/8V/1/8V								Remaining □etail □□□□□ □□□□m□□racture index -	mm		
				Cons				anty other use.	rehole at unim m		
Groundwate	-1	Sealed	R	Ho		rmatio	□iamet mm	·		mm□ Too Chise	20
Remarks: 🗆	due to obstruc	tion⊡Boreho	e percussion terrole terminated at	t re □uired	t □□□m depth□		Shift [ddimmiyyyy Casing	depth Remark Start o⊡B ⊡nd o⊡Bd	s orehole orehole

	RIORI TECHI	ITY NICAL					Tel□□ □ax□□	y Geoteo priorityge		cal∄e			Drilled By G□ □AK Logged By AM □SC	Borehole No BH04 Sheet □ o □
		lame:					1	ect N	0.		Co-ords:		ITIT N	Hole Type
	-	y Inner					Date						1	Cable Rotary Scale
Clie	nt: B	antry Bay	/ □arbo	ur Cor	nmissi	oners	1]		Level: -	m AO□		
□ ell □ Backtill	□ ater Strikes	Sa	amples	In S	itu Tes	ting		Casing	Le⊡el	□epth		Stratum	Description	Legend
Dackilli		□epth □m	□ Type		Res	ults		□lush	m AO□	□m□	□erv soft□dark (grev=black	cslightly gra elly	****
					□blo s	260					sańdy organic s and sea⊟eed ir □⊞m - □⊞m	SILT □ith o agments□	occasional shell⊡plant	
			B U SPT SPTLS	N□□	□blo□s						Sti⊞light bro⊡r	n⊑grey CL	A	******
			B U SPT SPTLS	N□□	□blo□s						Sti⊞bro□n⊑gre gra⊡elly slightly □-□mm thick□	ey⊑thinly la sandy CL	minated⊡slightly A□⊑Laminations are	
			B SPT SPTLS			r⊞mm⊞		er IIm			is line to mediu	m⊡angula	e⊡slightly sandy ne to coarse⊡Gra⊡el r mudstone⊡	
			B CPT		or ⊟ m i	m□			io ⁿ	Purpose, Purpose, Periedri	Moderately Dea		rately strong⊡dark	
							Cotts	For sent of co	de die		grey□aminated SAN□STON□ □ o□carbonate mi □eathered to m smearing and in thick□ractures spaced⊞ractur	SILTSTC ith occas udstone inderately nulling oin item es dip independent item and stepp racture Non-intac	ON☐ and line-grained ional lossils and lens leathering Slightly □eathered Clay factures up to □mm ly closely to closely to closely to degrees □ith ed rough surfaces □ index -NI□	es
						Nlmm ı □mm ı □□mm	a g				mm(
												Continued	I next sheet	
	□ ater	· ·	□ TCR	SCR	R□□	□racture spa	Ť	Casing	Le el	□epth		_		
Grou Struck			Aiter S	Sealed	Comn	nent	□ol		_	□iamete mm	er Casing □epth	Chise □epths □□□ to	ım i Time ınhn	nm□ Tool Chisel
		to obstru	ıction⊡Bo	rehole t	erminat	sion termina ed at re⊡uire	ed dept	□≣m due th□		Shift D	∂ata: Ground⊡ate		dd mm yyyy Casing c	depth Remarks Start o Borehole Ind o Borehole
E uip	ment	Meth	ods: C	ando ∐ ompres	sed air-	ltaBase □□□ mist ɪlush□	J							

	PRIORI OTECHI						Tel□□ □ax□□	y Geoteo Driorityge		caltie		Drilled By G□ □AK Logged By AM □SC	В	hole No	
	ect N						1	ect No	D.		Co-ords:			le Type	
		y Inner □a					Date			_				e®otary Scale	-
Cile	ent. B	antry Bay	arbou	ır Cor	nmissi	oners	1]		Level: - m AO				_
□ ell □ Backtill	□ ater Strikes	□epth [m □	Rota TCR	SCR		□ractu	ree	Casing □	Le el	□epth	Stratun	n Description		Legend	
											Remaining etail etail recture index -N	NI□			·
											□nd o⊡Bore	ehole at □□□□m		-	·⊞
										3120°56	red for any other use.				·⊞
							Cons	For cot	nspection Stight ox	get reas					· III
															· 🗆
	□ ater		TCR	SCR	R□□	□racture spa	-	Casing	Le el	□epth					1
Grou Struc	indwa :k		ter S	ealed	Comm	nent	□ole		rmation Casing	□iamet	er Casing □epth □epths	elling: som: Time thh to::::::::::::::::::::::::::::::::::		Tool Chisel	PORED TA HOT DIGITION OF D
Rema	arks:	□epth o□□ate to obstruct	er⊡⊒m ion⊡Bor	Cable ehole to	percuss	sion termina ed at re⊡uire	ited at ited dept	⊒≣m due h□	• [Shift C)ata: Ground⊡ater Shi⊡ - □□	ddmmÿyyy□Casing	depth Re	emarks rt o∈Borehe	ole
E uip	oment	Method				taBase □□□ nist ɪlush□]				-	m m	□nd	rt o⊡Boreho I o⊡Boreho	le

	PRITY CHNICAL					Tel □□ □ax□□	y Geote priorityge		calīie		Drilled By G□ □AK Logged By □MC	Borehole No BH05 Sheet □o□
Pro ect						1	ect N	0.		Co-ords:		Hole Type
	Bay Inner □a					PCI	ann					Cable Rotary Scale
Client:	Bantry Bay	□arbou	ır Com	ımissi	oners		65. 1111111]		Level: - m AO		
□ ell □ □ at Backıill Strik	es	nples	In Sit	u Tes			Casing □lush	Lerel	□epth	Stratu	ım Description	Legend
	□epth Im□	Туре		Res	sults		lusii	Im AO□	□ m □	Grey⊡slightly gra⊡elly \$		x x x x x
		B SPT	NICO					-000		medium⊡subangular to	subrounded□	× × × × × × × × × × × × × × × × × × ×
		□S B	N							irm grey⊡slightly gra SILT Sand is tine to c medium subangular □	⊡elly slightly sandy parse⊡Gra⊡el is tine to	* * * * * * * * * * * * * * * * * *
								-		□irm to sti⊞grey□mott gra⊡elly slightly sandy	led bro⊡n⊡slightly	
		SPT	N							medium ⊑subangular to	o subrounded □	* * * * * * * * * * * * * * * * * * *
		B SPTLS										**************************************
												****** ******
		SPT	N									* * * * * * * * * * * * * * * * * *
	000-000	SPTLS B								CLA□ becomes tirm	ı at □Ⅲm□	
										□ery dense□grey□COE Gra⊡el is tine to mediu subrounded □ □ □ mm o	BL□S □ith much gra⊡el m⊡angular⊡Cobbles are	
		SPT			□ or □mm						id I i i i i i i i i i i i i i i i i i i	0 = 0 0 0
		В								Sandy GRA LSand		0 - 0 - 0
										My say or		0 = 0 0 0 0 0
		SPTLS CPT		or □□m	m□			-000		Sandy GRA□□L□Sand coarse⊡angular□	is coarse⊡Gra⊡el is tine	e to
									Diffe Ci	Open hole boring⊡no r	•	
								respection	net	□ eak to strong black□ith uart and calcitepyrite eathering Sli	□ossili@rous SILTSTON □eins and crystals o□ □ehtly □eathered□	\
							For	yiight o		Occasional clay smea	ring along īracture losely spaced⊡dipping □	
					•		ent of co	8,		□Ⅲm - □Ⅲm□□ractu	re index - 🗆	
						-S	ent			□□□m - □□□m□Parti □□□m - □□□m□Parti	e index - 📖	
						Co					any calculatedus.	-
										□≣m - □≣m⊞ractuı	e index - 🗆	-
												- - -
										□≣m - □≣m⊞ractuı	e index - 🗆	-
					□mm n							
					□□□mm							
										□≣m - □≣m⊞ractui	e index - NI□	-
										l .	edominantly non-intact□	-
										Contin	ued next sheet	
☐ at		TCR	SCR	K□□	□racture spa	Ť	Casing	Le⊡el rmatio	□epth	<u> </u>	selling:	
Struck		ter Se	ealed	Comn	nent	□ol	e □epth	Casing	□iamet	er Casing □epth □ept	hs ming. Time thh to the thick the	mm□ Tool Chisel
							m m m		mm mm mm	m IIIIm IIIIm		OHIGGI
Remarks	i □epth o□□ate due to obs	erm	Cable Boreho	percus le term	sion termina ninated at re	ted at uired	□□□□m depth□		Shift [Data: Ground ater Shi	t dd mm yyyy⊡Casing	depth Remarks Start o⊡Borehole □nd o⊡Borehole
E uipme	nt Metho	ds: 🏻 a	ando III	□ □ e sed air-	ItaBase □□ mist ɪlush□	l		_		□ □□ m	LIMLINI LIML	∟na o∟ ʁ orehole
			, 500									

	PRIOR						Tel□□□	y Geoteo briorityge		calite		Drilled By G□ □AK Logged By □MC	В	hole No H05)
	ect N		1					ect No	Э.		Co-ords:			le Type	
		y Inner □a antry Bay □		ır Cor	nmissio	oners	Date	es:]		Level:		8	e Rotary Scale	
□ ell □ Backûll	□ ater Strikes	□epth Im□	Rota	ary Co		□ractu		Casing □	Le el	□epth	Strate	um Description		Legend	
						Пасц	1165				□ith □uart□and calcite pyrite□□ eathering□Sli Occasional clay smea sur□aces□□ractures□C	ring along racture closely spaced⊡dipping □ anar smooth sur aces□			
											Doda R	orehole at m			
												ordine at the mili			
										esc.	ed for any other use.				
								For	nspection Wight or	purponi per rechi					-
							Cons	ent of cor							
	□ ater	□epth Im□	TCR	SCR	R	□racture spa	acing	Casing	Le⊡el	□epth					
Grou Struc	ındwa	iter:	ter S	ealed	Comm	ent	ole	le Info	rmation Casing	n: □iamet ^{mm}	er Casing pepth pepth	selling: hs m Time thhi to		Tool Chisel	A ROLLANDING D
Rema	arks:	□epth o□□ate due to obs	erm truction	Cable Boreh	percuss ole termi	ion termina nated at re	l ated at le cuired	⊒⊒⊡m depth□	-	Shift C		ift cdd:mmtyyyy Casing		emarks rt o⊡Borel d o⊡Boreh	hole
E uip	oment	: Method				taBase □□ nist ∄ush□					□Ⅲ□m	UILM	⊔no	i olboren	ioie

	PRIOR)——→ ITY NICAL						Tel □□ □ax□□	y Geoteo Driorityge		calīte			Drilled By □C□G□ Logged By AM	В	ehole No BH06
		lame:						1	ect No	0.		Co-ords:		N	Но	le Type
		y Inner						 								le:Rotary Scale
Clie	ent: B	antry Ba	ıy 🗆	arbou	ır Cor	nmissi	oners	Date	es:]		Level: -	n AO			Julia
□ ell □ Backtill	□ ater Strikes	S	am	ples	In Si	tu Tes	ting		Casing	Le el	□epth	,	Stratum	Description		Legend
Dackin		□epth In	n□	Туре		Res	ults		□lush	m AO□	□ m□	Loose⊡bro⊡n⊡gr	ey□mottle	ed □hite□slightly		(1,1×3.7)
				□S B CPT	N□□							silty ⊡ery sandy 0 Sand is ∄ne to co coarse⊡angular t	GŘA□□L barse⊑Gr	ith some sea shells a⊑el is tine to		
				B CPT	N□□		(III)(II)(II)					Stillorange bro	coarse□a	ly gra⊡elly sandy Sand is iîne to coars ngular to ⊡mm x ⊡mm⊡	se□	
				B CPT	N	C) (II) (II)						□ eathered MU□ grey⊡COBBL⊡S	STON I	eco⊡ered as medium k □□□mm□	n dense□	
												□ighly □eatherec	d MU□ST some clay	ON⊡ reco⊡ered as lo	oose	
								mm□		- III o	Putposes Putposidi	only and	g⊡grey⊡r	actured MU□STON		
				B CPT			r — mm —	or □m	m □□□≪	UP OF		Chiselled rom □	III m to □	□□m or □hours□		
			-	CPT				Cons	ent of co	A. S.		Interbedded grey LIM□STON□ and MU□STON□ □itl □ eathering□Mod smearing along □	g to stron y⊡ine-gra d dark gre h occasio derately ⊡ racture s	g⊏thinly nined⊡massi⊡e y⊆laminated⊡calcare nal calcite ⊡ining⊡ eathered⊡re⊡uent our aces⊡issolution	clay	
							□mm r □□mm □□mm	a⊡g				□ractures□Close	ly spaced casional □ nar rough □racture □racture i	index - 🗆	шт	
												□IM - □IIM□		ndex - □□ ole at □□□□ m		
																-
Grou Struc	□ ater indwa k		n⊡	TCR er Se	SCR	Comn	□racture space	Ho		_	□iamete mm	er Casing □epth	Chisel epths to	m ⊡ Time 1hhi		Tool Chisel
Rema		Borehol	le te	rmiante	ed at re	□uired o	obstruction depth□		īm□		Shift D	lata: Ground⊡ater - -		Id mm yyyy Casing	depth Re Sta □ne	emarks art o⊡Borehole d o⊡Borehole
ام	-5.1			Co	mpres	sed air-	mist ∄ush□									

PRIORI GEOTECHI				Priority Geotec		calīte			Log	ed By GG ged By	Borehole No BH07 Sheet □ o □
Pro ect N		who a w		PC PC	0.		Co-ords:			uvi	Hole Type Cable Rotary
	y Inner □ai antry Bay □		r Commissioners	Dates:	1		Level: -	m AO□			Scale
□ ell □ □ ater Backiill Strikes	Sam	nples	In Situ Testing	Casing	Le el	□epth		Stratum	Descrip	l tion	Legend
Backillounces	□epth Im □	Туре	Results	□lush	m AO□	□m□					1.0378, 3-21
		□S B CPT	Noo manaan				Loose to mediusilty Ery sandy gragments Sandine to coarse Ea	GRA□□L d is tine to	□ith man coarse□	y shell Gra⊡el is	
		В				-	Cream⊡mottled	grey SILT	¯ □ith maı	ny shells□	× × × × × × × × × × × × × × × × × × ×
		CPT B	Noo manana			-	□ery soft□grey□ shells□Sand is	slightly sa	indy SILT	□ith some	×××× ××××× ×××××
		U B	⊡blo⊡s			-	□ery sott□grey□ shells ragment	slightly sa	ndy SILT	□ith some edium□	***** ***** ****
		SET	No messo								X X X X X X X X X X X X X X X X X X X
		B U	⊡blo⊡s				ery loose to be gracelly SAN sand is the to r	ose⊡grey⊡ith occas	ery silty sional she	□ery Il ⊡agments□	
		B SPT SPTLS	Noo allamana		nspection	Putposes Refrechi	grafelly SANT I Sand is the to read the sand is the to read the sand is the sa				
		U	⊡blo⊡s	Constitution Con	yite 	-	Medium dense⊡ Sand is tine to c coarse⊡angular	coarse⊡Gr	a el is in	dy GRA□□L□ le to	
		B CPT	Non minimum			-	Grey⊡slightly gr			el is tine to	*
		B U	⊡blo⊡s				coarse angular				
		SPT SPTLS	N				559-5,19-	.,			*****
		В	⊡blo⊡s								***** ***** ***** ****
□ ater	□epth Im □	Туре	Results	Casing	Le⊡el	□epth		Continued	next shee		
Groundwa Struck		ter Se	ealed Comment	Hole Info	Casing	□iamete mm	r Casing □epth	Chise epths to	ım⊡	Time hhm	nm□ Tool Chisel
Remarks:	Cable percus: Borehole te	sion tern erminate	nianted due to obstructio d due to obstruction□	n at □□□□m□	5	Shift D	I ata: Ground⊡ate - -		dd mm īyy	yy⊡Casing d □□□□m □□□□□m	epth Remarks Start o⊡Borehole □nd o⊡Borehole
E uipment	Method	is: □a Co	ndo Soil Mech PS mpressed air-mist Ilush	M □G							

	PRIOR					[Γel □□ □ax□□	y Geoteo Decident of the control of		calite		Drilled By CGG Logged By AM	В	ehole No BH07	
	ect N							ect No) .		Co-ords:		Но	le Type	_
		y Inner □a					PC			-				le Rotary Scale	-
Cile	ent: B	antry Bay	⊔arbou	ır Con	nmissi	oners					Level: - m AO]	[_
□ ell □ Backıill	□ ater Strikes		nples	In Sit	tu Tes			Casing I □lush	Le el	□epth	Stratur	n Description		Legend	
		□epth Im□	Type		Res	uits			III AO		Sott⊑grey⊑slightly sandy	SILT 🗆		×××××	
			SPT SPTLS B CPT CPT H			□ (or □ mm□ r □ mm□□ (c	or □m		- Barbara Barb	Put Post	eathered MU□STON GRA□L ith many col coarse Gra el is ine to subangular Cobbles are Chiselled from im to Moderately strong dark MU□STON ith occas eathering Moderately smearing along fracture and strength reduction Closely spaced racture occasional ertical fracture undulating smooth im - im miles	bbles Sand is fine to coarse angular to mm x mm graph or hour grey laminated ional calcite eins	clay ures □	X X X X X X X X X X X X X X X X X X X	
	□ ater	epthm□	TCR	SCR	Rnn	□racture space	ina	Casing	Le⊡el	□epth					- 60
Grou Struc	ındwa	iter:		ealed	Comm		Ho	le Info	rmatio Casing	n:	<u> </u>			Tool Chisel	LIR LY COURS YA ROT DOUBLOOK BROWN
Rema	arks:	Cable percus Borehole t	ssion terr erminate	mianted ed due t	due to o obstr	obstruction a uction□	at IIII	⊡m□	!	Shift [)ata: Ground⊡ater Shift	ddmm©yyyy□Casing	depth Re Sta	emarks art o⊑Boreh d o⊑Boreh	nole ole
E uip	ment	Metho	u3.			Mech PSM mist ∄ush□	G								10.000

PRIOR GEOTECH					T	el 🗆 🗆	/ Geoted		caliîe			Drilled By G□ □AK Logged By AM	В	ehole No BH08 et □o□□
Pro ect N							ect No	э.		Co-ords:	<u>-</u>	⊓⊓N		le Type
	ay Inner □a					PC)e:					•		e®Rotary Scale
Client: B	antry Bay [⊒arbou	r Com	missi	oners			l		Level: -	n AO□			
□ ell □ □ ater Backiill Strikes		nples	In Site				Casing 〔 □lush	Le Eel	□epth	\$	Stratum	Description		Legend
	□epth Im□	Туре		Res	uits			III AOLI		Loose grey blac			bloo□	**************************************
		B SPT □S □ SPTLS	Noo							Sand is fine to co	oarse⊡Gr	s and occasional cob a⊡el is tine to unded⊡Cobbles are	DIes⊔	* * * * * * * * * * * * * * * * * * *
		B SPT	N							shells and many ine to coarse⊡G	lenses o ra ⊡el is íi	dy GRA□□L □ith som □grey clay□Sand is ne to coarse□ Cobbles are □□mm dia		
		SPTLS U		blo⊡s						some cobbles □S	and is 🖆	gra⊡elly CLA□ □ith ne to coarse⊡Gra⊡el is rounded⊡Cobbles	3	
		SPT SPTLS			□ or □mm□				-	gra elly organic S	SILT □ith	ghtly sandy slightly strong organic µments⊡Sand is fine⊡		X.3/6.X X X X X X X X X X X X X X X X X X X
		B U SPT D SPTLS	N ====	blos	380					mer use.				X 316 x X X X X X 346 X 316 x X X X X 316 x X X X
		blo⊡s				. 00	Quiqoses	Becomes @rm Grey slight	belo□ □	≣m □		X 3/6 X X X 1/6 X X X X X X X X X X X X X X X X X X X		
		B SPT					Tot of	nsportion Stight or		irm⊡grey⊡slight SILT⊡	ly sandy	slightly gra⊡elly		X X X X X X X X X X X X X X X X X X X
		SPT SPTLS B B			ery Lmm	Cor	m			Gra⊡el is fine to o sub-angular⊡Cob	coarse ⊡a obles are	ith many cobbles ngular to mudstone mudstone mudstone mudstone mum to	ia□/	
										Moderately □eak SILTSTON□ and □ eathering□Slig	to ⊑ery s l tine-grai	trong⊑grey⊟aminated ined SAN□STON□□ hered⊡Occasional cla	/ t	
					Nlmm m □□ mm a	a g					□ractur □racture th and u □racture i □racture i	es ⊡ery closely to es dip ⊡ to ⊡ degree ndulating rough ndex - NI□ ndex - NI□	es□	
					□□mm n	nax				шm - шта				-
□ ater	□epth Im□	TCR	SCR I	₹□□	□racture spac	ing	Casing	Le⊡el	□epth	·	Continued	I next sheet		60 A01 IB
Groundwa Struck		ter Se	ealed	Comm	ient	ole		rmation Casing	□iamete mm mm	er Casing epth	Chisel epths to	ım i Time ıħhr		Tool Chisel
Remarks:	□epth o□□ate	er III m truction	Cable p Borehol	ercuss e term	sion terminate inated at re□	ed at i	⊒≣m□ depth□	5	Shift D	la ta: Ground⊡ater -		dd mm yyyy Casing o		emarks irt o⊑Borehole d o⊑Borehole
E uipmen	t Method	d s: □a Co	ndo IIII mpresse	□	taBase □□□ nist ∄ush							LUULLU LUUL m	⊔no	u o∟dorenole

	PRIORI					-	Tel □□□ □ax□□	Geotec		calite		Drilled By G□ □AK Logged By AM	В	hole No)
Pro	ect N	lame:					Pro	ect No).		2			le Type	-
Ban	itry Ba	y Inner □a	rbour				PC				Co-ords:]N	Cable	e®otary	
Clie	ent: B	antry Bay [arbou	ır Cor	nmissi	oners	Date	es:			Level: - m AO			Scale	
□ ell □	. □ ater		Rota	ary Co	rina										-
Backill	Strikes.	□epth Im□	TCR	SCR		□ractur	es	Casing □lush	□ Le⊡el □m AO□	□epth	Stratu	m Description		Legend	
		.				□mm r □□mm	a⊡g				Moderately eak to er SILTSTON and ine-c eathering Slightly es smearing and localisec racture sur aces racture sur aces eathering e	rained SĂN STON □ aathered Occasional cl oxide stains on ures □ery closely to ures dip □ to □ degre undulating rough ure index - □ ture index - □	lay		
							Consc	red of color	- Basection of the state of the	Pulposs, pul	ي	rehole at IIII m			8 8 8
Struc		tter: Rose to Al	er⊡⊡m	ealed Cable			Hol	iiim iiiim	Casing	i □iamel mm mm mm	er Casing epth epth epth epth m	elling: s m Time hh to t	depth Re		hole
E uip	oment	Method				taBase □□□ mist ∄ush					- =	m m	□nd	rt o⊡Boreł I o⊡Boreh	iole

PRIOR GEOTECH					Tel□□i	y Geoted December of the contract of the contr		icalīte		Drilled By G□ □AK Logged By AM	В	hole No H0 et □o□□
Pro ect N	lame:				Pro	ect No	o.		Co orde:			e Type
Bantry Ba	ay Inner □aı	rbour			+				Co-ords:	LLL N		elRotary
Client: B	antry Bay [arbou	ır Commi	ssioners	Date	es:]		Level: - m AO		_	cale
□ ell □ □ ater Backtill Strikes	Sam	ples	In Situ	Testing .		Casing [Le⊡el	□epth	Stratum	Description		Legend
Dackilli	□epth Im□	Туре		Results		□lush	m AO	ım ı	□riller described □eather		П	**************************************
		B CPJ	Noor an						□enseislightly silty ieny some cobbles□			
		CPT CPT	III or						Chiselled rom m to	IIIm Ior □hours□		48. 48.7
		СРТ		1					Moderately strong grey N □re uent clay smears ald Some oxide staining □ra T o sets □ Ma or set - dip □ Minor set - sub-re undulating smooth □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	ong līacture surlāces lotures Closely space approximate ⊡ degre rrtical Surlāces are	⊒ d□	
	am-			1					□ m - □ m □ racture			
	am-			NImm mm	a⊡g		- IIII	npulose metredi	Tacture Ta	d MU□STON□ and tin TON□□□ eathering□ re surfaces□Some oxi ely spaced□T□o sets te □□ degree dip□□□□	re⊡uent de	
	am-am			1	Cons	For int of cor	Ni 3rt		Moderately □eak □grey M □re □uent clay smears ald □ractures □Closely space set - approximate □□deg sub-□ertical □Sur aces an □□m - □□m □racture	ong līacture surlāces lid⊡T o sets — Malor iree dip — Minor set - e undulating smooth □]	
									Moderately strong grey and line to medium-grain eathering requent clasuraces □ractures □clos □Malor set - approximal Minor set - sub-lertical sundulating smooth □ m - □m □racture	ned SAN□STON□□ ay smears along ractor sely spaced□T□o sets te □□ degree dip□□□ Surraces are	ıre	
□ ater		TCR	SCR R	□ □ □ racture spa	Ť	Casing le Info	Le:el	□epth				
Struck	Rose to A			omment		e □epth □□m □□m	Casing	g □iamet □mm □mm	er Casing lepth lepths	Time thh	(Tool Chisel
Remarks:	depth□	o obstru	ıction⊡Bore	cussi⊡e boring t hole terminated	d at re□	ted at uired		Shift [dd mm yyyy Casing	depth Re Star □nd	marks t o⊑Borehole o⊡Borehole
E uipment	t Method	ls: □a Co	ndo IIIIII mpressed	⊡eltaBase □□ air-mist ɪush□								

	PRIOR)—— ITY NICAL					Tel□□ □ax□□	y Geoteo Deciriorityge		calièe		Drilled By G□ □AK Logged By SC	Borehole No BH10 Sheet □o□
		lame:						ect No	0.		Co-ords:	N	Hole Type
		ay Inner □a antry Bay		ır Cor	nmissi	oners	Dat	es:	1		Level: - m AO		Cable Rotary Scale
□ ell □ Backtill	□ ater Strikes		mples	In Si	itu Tes			Casing	Le el	□epth	Stratu	n Description	Legend
		epth m	□ Type □S B □		Res	ults		□lush	īm AO□	□ m□	□ark grey COBBL⊡S⊡C	obbles are mudstone□	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
			CPT B		or ⊟ m i	m⊟					□ eak to moderately □e fine-grained SAN□STC □ eathering□Moderately per□asi□e oxide staining	DN□ and MU□STON□□ / □eathered□ □xtensi□e and clay intilling o□	:::::::
											ractures ractures x spaced rock is non-int to degrees ith und sur aces	act⊡ractures dip □□ ulating smooth e index - NI□	
		ano-ano				Nlmm r □mm a □□mm	a g				Moderately strong to strossili erous LIM□STOI MU□STON□□□ eatheri Localised oxide staining along iracture surfaces closely spaced to closel□□ to □□ degrees□□ the intersecting □□ degree stepped smooth and un□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□	N□ interbedded □ith ng Slightly □eathered and clay smearing □ ractures □ xtremely by spaced □ ractures dipocasional ractures □ Sur aces are dulating smooth □ e index - □□	
		ano-ana			-			Çot	Syx	gurposé gurposé nei recui	ossili erous LIM□STOI Slightly □eathered□Loc	ong⊑grey to dark grey⊡ N□	
						Nlmm r □mm a □□mm	a g	entofco			and clay smearing alon. □ractures □ xtremely cl spaced □ ractures dip □ occasional intersecting Suriaces are stepped si smooth□ □□m □ □□m □ ractur □□m □ □ □m □ ractur	osely spaced to closely to □□ degrees□ith □□ degree ractures□ mooth and undulating re index - NI□	
											⊡nd o⊡Bo	rehole at □Ⅲ□ m	
	□ ater	□epth lim□	TCR	SCR	R	□racture space	cing	Casing	Le⊡el	□epth			
Grou Struc	ındwa	ater:		ealed	Comn	nent	□ol	le Info	rmatio Casing	n: □iamet	er Casing pepth pepth	elling: s m Time thhi to Time thi	mm⊡ Tool Chisel
Rema	ırks:	□epth o□□at due to obs	er III m	Cable Boreh	percus: ole term	sion termina inated at re	ted at uired	□Шm□ depth□		Shift D	Jata: Ground ater Shi⊞	ddimmiyyyy Casing o	depth Remarks Start o⊡Borehole □nd o⊡Borehole
E uip	ment	t Metho	ds: 🏻 a	ando III ompres	□□□e sed air-	ltaBase □□□ mist ɪush□							LIN OLDOIGIDIG

PRIOR GEOTECH				Tel□□i	Geotec		nical îte		Drilled By G□ Logged By SC	Borehole No BH11 Sheet □o□□
Pro ect N					ect No	0.		Co-ords:	N	Hole Type
	ay Inner □a Bantry Bay □		r Commissioners	Date				Level: - m AO		Cable Scale
□ ell □ □ ater	San	nples	In Situ Testing		Casing	Le el				<u> </u>
Backill Strikes	□epth Im□	Туре	Results			m AO	□epth □m□	Stratun	n Description	Legend
		SPTLS B SPT SS SPTLS B	N Dlo s					Loose dark grey ery green shell ragments Sand is to coarse subangular irm brongrey slight grarelly CLA sand is to medium subrounded.	coarse Gra el is line ly sandy slightly coarse Gra el is line n grey slightly	y
		SPTLS B SPT SPTLS SPTLS B	N					sandy slightly gra⊡elly Cl Gra⊡el is ∄ne to medium		
		SPT SPTLS B SPT SPTLS	Non minimum			- I		Sti to ery standark gregralelly St. To ith many coarse Gralel is coarse angular Becomes ery stimbel	cobbles⊡Sand is ⊡angular⊡Cobbles are	
		SPTLS B B SPT SPTLS	N=====================================	and a	ont of co	hight C		Stilldark grey slightly s Sand is coarse Gra el is	s coarse⊡angular□	ith
		B SPT SPTLS	(or					many cobbles Sand is c subrounded Cobbles an	oarseGra el is tine e e subrounded □	
		B CPT CPT	iii or iimmiiii or iimmii					cobbles Sand is coarse medium subangular Co subrounded	ĒGra⊡el is tine to bbles are subangular	40 - 10 - 10
□ ater		Туре	Results	Tital	Casing	Le⊡el		·	W	
Groundwa Struck		iter Se	ealed Comment	□ole	l e Info le e □epth □□□m	Casin		Chise cer Casing cepth	elling: com: Time thhi	mm⊡ Tool Chisel
Remarks: E uipmen			Borehole terminated due	to obstr	uction□		Shift [- -	ddmmlyyyy Casing o	depth Remarks Start o⊡Borehole □nd o⊡shi⊞ Start o⊡shi⊞ □nd o⊡Borehole

PRIORI GEOTECHI				Priority Geote Tel ax priorityg		calie			Log	ed By C ged By	Borehole No BH12 Sheet o	
Pro ect N	ame:			Pro ect N	о.		•			30	Hole Type	-
Bantry Ba	y Inner □a	rbour		PC			Co-ords:				Cable	_
Client: Ba	antry Bay [arbou	r Commissioners	Dates:			Level: - m	n AO			Scale	
□ ell □ □ ater Backtill Strikes.		nples	In Situ Testing	Casing		□epth		Stratum	Descrip	tion	Legend	
	□epth Im□	Туре	Results	□lush	Im AO□	□ m□	Loose	A□□L □it	n cobbles	 S□		-
		□S B CPT	Noo maaaaaaa		-0110]
		B U	⊡blo⊡s		-01110		□ark grey⊡slightl shells⊡Sand is m coarse⊡subround	ded□]
		B SPT SPTLS	Noo millionino				□ery soit⊡dark gr SILT □Sand is me		n⊡sandy	organic	X, 26, x X X,	1
		B U	⊡blo⊡s			ality se	outy any other use.				X X X X X X X X X X X X X X X X X X X]
		B SPT	Non	; cd	inspection	net jeu	□ense□grey⊡bro silty GRA□□L □it	□n⊡sligh th occasi	onal cobb	oles⊡Sand is	X 16 X X X X X X X X X X X X X X X X X X	1
		B CPT	N	ator			coarse Gra el is sandstone and si	meaium	to coars	e⊡subangula	r]
		B SPT	Noo miiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii				So:t⊡dark grey⊡s gra⊡elly SILT⊡Sa to coarse⊡suban	ınd is tine	ndy sligh ⊵Gra⊡el	tly is medium	X X X X X X X X X X X X X X X X X X X	1
		SPTLS U	⊡blo⊡s									1
		В									* * * * * * * * * * * * * * * * * * *	
□ ater	□epth Im□	Туре	Results	Casing	Le⊡el	□epth		Continued	next shee	t		
Groundwa Struck		ter Se	ealed Comment	Hole Info	Casing	n: □iamet īmm	er Casing □epth	Chisel epths to	m⊡	Time Ihhn	nm□ Tool Chisel	TA BOX TA BOX DIGUESION DE
Remarks:	Borehole term	nianted o	due to obstruction□			Shift [dd mm yy	yyg⊡Casing d □⊞⊡m □⊞⊡m	epth Remarks Start o⊡Borehol ⊡nd o⊡Borehole	e
E uipment	Method	ds: □a	ndo IIII									

	RIORI				Tel □□□ □ax□□	/ Geoted		cali̇̀e		Drilled By C Logged By SC	В	hole No H12 et □o□□
Pro	ect N	ame:			Pro	ect No	D.		O			e Type
Ban	try Ba	y Inner □a	rbour		PC				Co-ords:	LLLN	C	able
Clie	nt: B	antry Bay 🏻	arbou	r Commissioners	Date	es:	1		Level: - m AO			Scale
□ ell □	□ ator	Sam	nples	In Situ Testing								
Backill	Strikes.	□epth Im□	Туре	Results		Casing □lush		□epth □ □m□	Stratum	Description		Legend
			SPT SPTLS CPT	N iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	ōr □ m				So't dark grey slightly sa gra elly SILT Sand is tin to coarse subangular CLA becomes still be			X X X X X X X X X X X X X X X X X X X
	5000000		B CPT						Chiselled rom □□□m to □nd o□Borel	□□□m for □ hours□ nole at □□□□m		-
								170°56	ond any other use.			
						çof cof	nspection Stight of	net tedy				
					Cour	tion of cof						
	□ ater	□epth Im□	Туре	Results		Casing	Le⊡el	□epth				
Grou Struc			ter Se	ealed Comment	□ole		_		er Casing epth epths	Illing: m Time thhr		Tool Chisel
				due to obstruction□	-			Shift D	- 000	ddimmiyyyy Casing o	lepth Re Sta □no	marks rt o⊡Borehole l o⊡Borehole
E uip	ment	Method	is: □a	Indo IIIII								STOCKE

TECHI	ITY NICAL			[ax□□	riorityge		calite			Drilled By C CC Logged By	Borehole No BH13
40494090775	PHARADOELEKO				Pro	ect No) .				SC	Sheet □o□□ Hole Type
try Ba	y Inner □aı	rbour			PC				Co-oras:		LLN	Cable Rotary
nt: B	antry Bay [arbou	ır Commissio	oners	1				Level: m	AO□		Scale
□ ater	Sam	nples	In Situ Test	ting		Casing [Le⊡el	□epth	s	tratum	Description	Legend
ou ikes.	□epth Im□	Туре	Resi	ults		□lush	ım AO□	ım□				and of Sanda Sanarah
		B CPT	Noon (III)						some cobbles Sa	and is iin	e to medium Gra el	is
		В										
		CPT	Noo oo									
		СРТ		or □□mm□			-000		Chiselled orm	m to □	IIII m 🗆	day, day inny
		CFI					-				ense cobbles o⊡dark	0 0 0 0
									TRE.			0 * 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		CPT	Noo ma				-000		Open hole boring	□ riller o	described Sti IIII	0 0 0
		CPT	N			of of of	aspection Wright on	Quiqoses Rei tedii	Becomes Tery			
\bigvee		CPT	N		Cour	en e						
		СРТ										
□ ater	· ·	TCR	SCR R□□	□racture space	-		Le⊡el	□epth		_		
		ter Se	ealed Comm	ent	ole	e □epth □□m □□m	Casing	□iamete mm nm mm	er Casing □epth □	□epths	ım i Time 1hhr	nm⊡ Tool Chisel
	Borehole to	erminate	ed at re⊡uired d undo □□□□ □□el	epth□ taBase □□□		on□	S	Shift C	Pata: Ground⊡ater		m	lepth Remarks Start o⊡Borehole ∷nd o⊡shiit
	ater Strikes	nt: Bantry Bay Interest Sam Sam Strikes Sept In Individual Individ	rtry Bay Inner arbour nt: Bantry Bay arbour strikes Samples Strikes epth m Type B CPT CPT CPT CPT CPT CPT CPT C	nt: Bantry Bay arbour Commission ater Epth m Type Rest	Int: Bantry Bay arbour Commissioners ater Samples In Situ Testing cepth Type Results cepth B CPT No CPT cepth CPT No	Int: Bantry Bay arbour Commissioners Date Int: Bantry Bay arbour Commissioners Date Int: Bantry Bay arbour Commissioners Int: Bantry Bay arbour Bay arbour Bay Int: Bantry Bay	rty Bay Inner Carbour Commissioners Dates: Dates:	rks: Cable percussion terminated at the model at the companies of the comp	try Bay Inner Carbour PCC	Interpretation and the period of the period	In Bantry Bay Farbour Commissioners Dates: Level: - m AO	Pro ect No. PC

	PRIOR) → ITY NICAL					Tel□□ □ax□□	y Geote Description of the contract of the con		cal∄e		Drilled By □C □G□ Logged By SC	Borehole No BH13 Sheet □ o□□
		lame: ly Inner □a	rhour					ect N	0.		Co-ords:		Hole Type Cable Rotary
	-	antry Bay [ır Cor	nmissi	oners	Dat		1		Level: - m AO		Scale
□ ell □ Backûll	□ ater Strikes			ary Co				Casing □lush	Le el	□epth	Stratun	1 Description	Legend
		epth m	TCR			ractu	ires				Open hole boring□□riller gra⊡elly CLA□ ith bould	ders□	
		CT.III.D	СРТ	N							gra⊡elly CLA□□ Becomes (îrm belo□		
			CPT			r IImm IIII	or □n				offer use.		<u>т</u>
						Nimm	min	Çof.	aspection		Moderately strong dark ine-grained SAN STON eathering Slightly to reachering slightly to reacher surfaces closely spaced racture degrees the planar sm	noderately □eathered□ al per asi □e oxide stain □ractures □ery ss dip approximately □ ooth suriaces□ ure index - □□	s -
		cam-aam				□mm		atofice			□□□m - □□□m □□ractι	ure index - □□□	
	5										□nd o⊡Bore	ohole at □□□□ m	
C	□ ater	•	TCR	SCR	R□□	□racture spa	Ť	Casing	Lerel	□epth	01:	.llin av	
Struc			ter S	ealed -	Comr	nent	ol				er Casing lepth lepths		nm□ Tool Chisel
Rema	arks:	Cable percus Borehole to	sion ter erminate	minated ed at re	d at □Ⅲ e□uired o	im due to oldepth⊟)ata: Ground□ater Shi₫	dd mm ÿyyy⊓Casing c	lepth Remarks Start o⊡Borehole ⊡nd o⊡shi∄
E uip	oment	t Method	ds: 🏻 Co	ando III ompres	Ⅲ Ⅲe sed air-	ItaBase □□ mist ɪlush□]				- 111		LIIU OLSNIŪ

PRIORI GEOTECHI				Tel□□□	y Geoteo Decirity George		calite		Drilled By C G Logged By AM	Borehole No BH14 Sheet □ □ □ □
Pro ect N		who a w			ect No	э.		Co-ords:	<u> </u>	Hole Type
	y Inner □ai antry Bay □		ır Commissioners	Date		1		Level: - m AO]	Cable Rotary Scale
□ ell □ □ ater	Sam	nples	In Situ Testing		Casing	Lecel	□epth	Ctt	Description	Legend
Backill Strikes	□epth Im □	Туре	Results		□lush	m AO□	_ m□		n Description	
	CIIII)-CIIIIC	B CPT	Non minimum					Loose⊡bro⊡n COBBL□ is coarse⊡Cobbles are sub-rounded□		and
								Medium dense⊡dark gro	ey⊟ery silty ⊑ery	200
		В						gra elly SAN□ ith man medium Gra el is tine	ny cobbles⊡Sand is	ed□
		CPT	N					Cobbles are rounded□		
		В						Bro□n⊡silty ⊡ery sandy Gra⊡el is tine to mediur	GRA□□L□Sand is coar n⊑sub-angular□	se□
		CPT	N I I I I I I I I I I I I I I I I I I I					Medium dense grey broth many cobbles and	o□n⊡silty sandy GRA⊡ shells⊡Sand is coarse	
		В						sub-rounded⊡.		
		CPT	Noo amaa					other		
		B CPT	Noo mmaaano		Çot.	-IIII	out out	sub-rounded b. sub-rounded b. out to irm dark grey to gra elly sandy organic sendum	oro⊡n⊡slightly SILT⊡Sand is մne to	**************************************
		U B	□blo⊡s □□□ reco⊡ery	Cons	Eth of cor	Ŗ.				X data X X X X data X data X X X data X data X X X data X data X X data
		CPT	N							X dis X X X
		U B CPT	□blo□s □□□ reco□ery N□□□□□□□□□□			-0000		□irm□dark grey⊡slightly sandy CLA□Sand is iii iine to medium⊡sub-rou		X4xxx
		U	□blo□s							
□ ater	□epth Im□	Туре	Results		Casing	Le⊡el	□epth		ed next sheet	
Groundwa Struck		ter Se	ealed Comment No □ater encountered□			rmation Casing	□iamet mm mm	er Casing □epth □epth	elling: s m Time thh to	mm□ Tool
Remarks:	Borehole to	erminate ds: □a	ninated at IIII m due to		tion□		Shift C		ddimmiyyyy Casing	depth Remarks Start o⊡Borehole ⊡nd o⊡Borehole
•		Co	mpressed air-mist ɪlush ɪ							

	RIOR) ── ITY NICAL					Tel □□ □ax□□	y Geote Driorityge		calie		Drilled By □C □G□ Logged By AM	В	hole No)
_		lame:					1	ect N	0.		Co-ords:	1	Hol	е Туре	_
		ıy Inner □a antry Bay		ır Com	nmissi	oners	PC Date	es:			Level: -			e:Rotary Scale	-
											Level			<u> </u>	-
□ ell □ Backııll	□ ater Strikes	□epth ɪm□	nples Type	III SII	Res			Casing □lush	Le⊡el Im AO□	□epth	Stratum	n Description		Legend	
			В		reco⊡€	ery					□ irm □ dark grey □ slightly o sandy CLA □ □ Sand is ihn ine to medium □ sub-rour	e to medium ⊑Gra el is			
			В												
			CPT	N							Medium dense cobbles of	D_SILTSTON			
			B CPT CPT			⊡ or □mm□		m			Chiselled form to to	o 🗆 🗆 🗆 o			
			CPT		or ⊡mm		J				Open hole boring⊡riller				
											eak to moderately eam MUSTON eathering return clay smearing ractures. Closely space approximately, degree surfaces.	g⊡Slightly □eathered□ along เracture sur aces ed⊡dipping]		
						□mm n □mm a □□mm	a⊡g max	Çot	uspection Stight of	purpose, perredi	approximately degree surfaces us aces to the control of the contro	ıre index - □□			
							Cotte	t of			□nd o⊡Bore	hole at ⊞⊞m			
Grov	□ ater	•	TCR	SCR	Roo	□racture spa	Ť	Casing	Le⊡el rmatio	□epth	·	alling:			
Struc -	k	Rose to A	-			ountered□		e epth m m m m	Casing		er Casing epth epths		mm□	Tool	NEO TAROL BALLS FOR DIED
Rema	rks:	Cable percus Borehole	ssion terr terminate	minated ed due t	at □Ⅲ o obstru	 ⊡m due to c uction□	bstruc	tion□		Shift [Data: Ground⊡ater Shi⊞	ddimmiyyyy⊡Casing d	depth Re Stai □nd	marks t o⊑Boreh l o⊡Boreh	hole iole
E uip	oment	t Metho	u3.			aBase □□ mist ɪtush□									

PRIORI GEOTECHI				Priority Geotec		icalite		Drilled By G□□AK Logged By AM	Borehole No BH15 Sheet □o□□
Pro ect N	l ame: y Inner □al	rbour		Pro ect No	0.		Co-ords:	- 0000N	Hole Type Cable Rotary
-	<u> </u>		ır Commissioners	Dates:]		Level:	O D	Scale
□ ell □□ ater Back⊞l Strikes.	San	nples	In Situ Testing Results	Casing □	Le el	□epth	Strat	tum Description	Legend
		B U SPT B	bloos N				□ery so⊞grey⊡slightl sandy SILT ∟Sand is coarse⊡subrounded t	ine⊑Gra⊡el is medium to	
		U SPT B SPTLS	blos recolery		-000		□ery solt⊡grey⊡slightl organic SlLT □ith she iragments□	ly sandy slightly ell ⊡ood and plant	X X X X X X X X X X X X X X X X X X X
		U SPT B B SPTLS SPT	Dlo s recolery				□ood ragments and prine	y sandy slightly □ith occasional shell and plant remains⊡Sand is	X 16 X X X X X X X X X
		SPTLS U B U	□blo□s □□□□ reco□ery □□blo□s		-IIII	n put tedil	Bro□n⊡silty P□AT □it plant remains and □o	th some shell	Selection of the control of the cont
		B SPT SPTLS	N I I I I I I I I I I I I I I I I I I I	Consent of co	7			shell and □ood ragments	t. × site. site. s. × site. × × ×
					-000		Grey⊡slightly gra⊡elly medium⊡subrounded	CLA Gracel is fine to to rounded	M 8 × 100
		SPT B SPTLS	N				Sti⊞grey⊡slightly gra SILT ⊡ith many cobbl ⊞mm⊞	□elly slightly sandy es□Cobbles are □□mm :	X
		В					coarse⊡subangular to	CLA Grael is tine to subrounded	
Groundwa Struck	iter:	Type ter Se	Results ealed Comment	Casing Hole Info	Casing		Chi er Casing □epth □ep	iselling: ths m Time thhi	mm□ Tool Chisel
Remarks:	□□m due t re□uiredde	o obstru pth□ ds: □a	Cable percussice boring ction Borehole terminate and the community	ed at □		Shift D	-	nit ddmmlyyyy Casing (depth Remarks Start o⊡Borehole ⊡nd o⊡Borehole

	PRIOR					-	Tel□□ □ax□□	y Geoteo Driorityge		icalīte		Drilled By G□ □AK Logged By AM	В	hole No H15	
	ect N						1	ect No	0.		Co-ords:	TITIN		le Type	
		y Inner □a		Co.			PC Date	es:				•	_	e Rotary Scale	
Cile	iii. B	antry Bay				oners	1				Level:		Е		_
□ ell □ Backtill	□ ater Strikes	□epth Im□		ary Co	oring R	□ractur	es	Casing □lush	Le el	□epth	Stratum	Description		Legend	
											Moderately □eak □grey M Occasional smearing an surfaces □fidence o □gre □ractures □Closely space planar smooth surfaces □ □m - □□□m □ractu	d staining along īractu bund□ater at □□□m□ d□□□ degree dip□□ith □	ıre		
											□□□m - □□□m □ractu	re index -□□□			
		0000-0000				□mm n □□mm a	a⊡g				□□□m - □□□m □ractu	re index - IIII			
											outh any other use.				
										1383	Strong grey LIM STON smearing and staining al ractures Closely space planar smooth sur aces	ong racture sur aces d □□ degree dip □ ith			
								For For	- die Aspendi Vitalita		ery strong grey MUS'strong grey LIMSTON smearing and staining all ractures Closely space planar smooth suraces	FON□ interlaminated □□□ eathering□Occas ong 『racture sur aces d□□□ degree dip□□ith Bedding □aries bet□e	sional □ 1		
							Conf	9	-111111		□mm and □mm in thicku□nd o⊡Bore	ness⊡ hole at □□□□□ m			
	□ ater	epth Im	TCR	SCR	R	□ racture space	cing	Casing	Le⊡el	□epth					700018
Grou Struc	ındwa	iter:		sealed	Comn	nent	□ol	le Info	rmatio Casing	n:	er Casing pepth pepths			Tool Chisel	TA BOURD TA BOT PROUPING DIE.
Rema	arks:	□epth o□□at □Ⅲm due re□uiredd	to obstr	□Cable uction□	percus: Borehole	si⊡e boring te e terminated	ermina at	ited at	;	Shift I	Data: Ground ater Shiti	dd mm yyyy Casing	depth Re Sta	emarks rt o⊡Boreh d o⊡Boreho	nole ole
E uip	oment	Metho	u 3.			ItaBase □□□ mist ɪtush□									10.000

	RIOR) → ITY NICAL				Tel□□□	y Geoteo Driorityge		caltie			Drilled By GG Logged By SCGAM	Borehole No BH16 Sheet □o□□
Pro	ect N	lame:					ect No	0.		Co-ords:			Hole Type
		y Inner □a				PCI	oe:						Cable Rotary Scale
Clie	ent: B	antry Bay	□arbou	ır Commi	ssioners		es.]		Level: - m	AO		
□ ell □ Backtill	□ ater Strikes		mples	In Situ			Casing □lush	Le el	□epth	St	tratum D	escription	Legend
		epth m	□ B □S □S		Results					Bro□n⊡slightly silt many cobbles⊏Sai is coarse⊡subrour	ind is med	elly SAN□ □ith ium to coarse⊡Gra	icel
			В					-000		Bro□n⊡silty □ery g to coarse⊡Gra⊡el i	gra⊡elly SA is coarse	N□□Sand is mediu subrounded□	um -
			В						10 ⁶⁵ 0	Chiselled from			
			SPT SPTLS SPTLS		or ummu	Cons		Especial Stight of	est esti	Boulder clay reco	ered as□		te:
										□nc	d o⊡Borehol	e at □Ⅲm	
Grou Struc	□ ater ındwa :k	ater:		SCR R	□ □ racture spa	Ho		Le el rmation Casing	□iamete mm mm	er Casing □epth □	Chiselli epths in	n⊡ Time ∄h	mm□ Tool Chisel
Rema		Borehole t	terminate	ed at re⊡uir	e to obstruction ed depth□ Soil Mech PSM		m□		Shift C	Pata: Ground⊡ater - :	Shift dd	mmīyyyy Casing	depth Remarks Start o⊡Borehole ⊡nd o⊡Borehole
_ ui	,,,,G,,	. HIGHIO	Co	mpressed	air-mist ːlush□								

PRIORI GEOTECHI			Priority Geoted Tel		calite		-	Drilled By CCG Logged By SCAM	Borehole No BH17 Sheet □o□□	
Pro ect N				Pro ect No	0.		Co-ords:		N	Hole Type
	y Inner □aı			PC Dates:						Cable Rotary Scale
Client: Ba	antry Bay [larbou	r Commissioners	Dates.]		Level:n	n AO□		
□ ell □□ ater BackûllStrikes		nples	In Situ Testing	Casing □	Le⊡el Im AO□	□epth	,	Stratum	Description	Legend
	□epth Im□	Туре	Results	Liusii			Grey⊡ery silty ⊡	ery gra ⊑el	ly SAN□ □ith many	· *****
		В					shell ragments⊡ tine to coarse⊡su		to subrounded	
		CPT	N D D D D D D D D D D D D D D D D D D D			-	Loose⊡bro⊡n⊡sli many shell ⊡agm űne⊡subangular	nents⊡Sar	rsandy GRA□□L □ nd is coarse⊡Gra⊡ nded□	ith el is
		В								* * * * [
	CPT NO IIII					-	Loose bronslimate ith shell ragme to medium s	ents⊡Sand	r ⊑ery sandy GRA⊟ d is coarse⊡Gra⊡el d to rounded⊟	L is
		В								*
		CPT	N				Becomes med	dium dens	se belo 🗆 💷 m 🗆	
		В					, 115e.			* * * *
		СРТ	N=====================================		-000		other			* * * * •
		B CPT	Noor (III)	 F. Od E. Od	nepection Wightow	outposes net redu	Medium dense⊡t GRA□□L □ith ma coarse⊡Gra⊡el is subrounded□	any shell any s fine to co	giragments⊡Sand is parse⊡subangular t	
		B CPT	:::: (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Constitution			GRA□□L □ith ma	any shell	y silty ⊡ery sandy iragments⊡Sand is edium⊡subrounde	d
		B CPT	N			-	□ery sti □□grey⊡s □ith some cobble Gra⊡el is ûne⊡su	es Sand	ndy gra⊡elly CLA⊟ is ûne to medium⊟ ⊟	
		B CPT	□ □□□□ ōr □mm□□□	or um			Grey⊡ery sandy Gra⊡el is tine to o subangular⊡silts	coarse a	A□□L□Sand is coar ngular to	Se 🗆
		CPT	or omm	or mm			Chiselled from Boulders recorer		im lōr □hours□ ery clayey GRA□□L	
							sandstone Ⅲ			78.0 78.0 78.0 78.0
□ ater		Туре	Results	Casing	Le⊡el	□epth		_	next sheet	
Groundwa Struck		ter Se	ealed Comment	Hole Info	Casing	□iamete mm	er Casing epth	Chisell epths to	m ⊡ Time ⊡h	hmm⊡ Tool Chisel
Remarks:	Cable percuss Borehole te	sion terr erminate	ninated due to obstruction d at re⊡uired depth□	at IIIm I		Shift D	ata: Ground□ater - -		ddimmiyyyy Casing	g depth Remarks Start o⊡Borehole Start o⊡Borehole
E uipment	Method	ds: □a Co	ndo □□□□Soil Mech PSM mpressed air-mist ∄ush□	□G						

	PRIOR) → ITY NICAL				-	Tel□□ □ax□□	y Geoteo		calie		Drilled By □C□G□ Logged By SC□AM	E	ehole No	
		lame:						ect No	0.		Co-ords:		Но	ole Type	_
		y Inner □a					 				Co-olus.	JIIIN		le Rotary Scale	
Clie	ent: B	antry Bay	□arboເ	ır Cor	nmissi	oners	Date	es:]		Level: - m AO				
□ ell □ Backill	□ ater Strikes	□epth @m□	Rota	SCR		□ractur	-00	Casing lush	Le el	□epth	Stratum	n Description		Legend	
							50				Boulders reco⊺ered as □ sandstone □	ery clayey GRA□□L			
											Moderately strong grey deathering Slightly dea smears along racture su sets Closely spaced dip degrees dith occasional Suriaces are planar smo	nthered ⊡re □uent clay Ir aces □ractures □T □ Ir aping approximately □ Ir □ degree □ractures □ oth □	0		
						□mm r □mm a □□mm i	a g				Moderately strong to stro medium grained LIM□ST eins□ eathering□Slight clay smears along ractures□ractures□T□o sets□Medaproximately□ degree degree ractures□Suriace rough□	ng grey⊡ine to 'ON□ □ith ire uent ca tly □eathered □re ue re sur laces □ dium spaced dipping s □ith occasional □			
									- IIIIII	Putpose Putpose Refrecti	□□m□ractu	re index - ШППППППППППППППППППППППППППППППППППП		30 (S. S	
							Cons	For co	yirdi Yirdi						
															-
Cra	□ ater		TCR	SCR	R□□	□racture space	Ť	Casing	Le⊡el	□epth	<u> </u>	lling:			
Struc	indwa k		iter S	ealed	Comm	nent	□ol		_	□iamet mm	er Casing epth epths	Time Thh	mm□	Tool Chisel	DIED 74 ROT DIGITO
		Cable percus Borehole t	erminate	ed at re	:□uired o	obstruction depth□ Mech PSM		n□		Shift [Data: Ground ater Shit	ddimmiyyyy Casing	depth R Sta Sta	emarks art o⊡Boreh art o⊡Boreh	nole nole
E uip	omen	t Metho	u3.			mist ∄ush□	_0								

PRIORITY GEOTECHNICAL Priority Geotechnical Tel ax prioritygeotechnical(ie) Pro ect Name: Bantry Bay Inner arbour E:										
· ·										
Location: Bantry Co Cork N:										
Client: Bantry Bay arbour Commissioners Pro ect No: PC Level:	m AO L									
Readings Diagram (N100	alues) Tor⊡ue									
m Blows/100mm 10 20	30 40 Nm									
1.0										
3.0 4.0 5.0 Following to the result of th										
5.0 Folkered Converted Con										
7.0										
8.0										
Remarks: - Fall Height:	Cone Base Diameter:									
Hammer Wt:										
Probe Type: □PS□	Log Scale: □□□□									

PRIORITY GEOTECHNICAL Priority Geotechnical Tel ax prioritygeotechnicalie Pro ect Name: Bantry Bay Inner arbour E:										
Pro ect	t Name: Bantry Bay Inner □arbour						— Dat			
	on: Bantry Co Cork			N:				Operated by:		
Client:	Bantry Bay □arbour Commissione	rs Pro ect No	: PC	Level: -	Ⅲ m AC) [L _□			
□epth	Readings Blows/100mm			ram (N100				Tor□ue		
ım□		10	20	; 	30 	40		□Nm□		
1.0										
2.0										
3.0			inspection purposes of	A. any other use.						
5.0 -			Megetion purpose ited							
6.0 -		The to	24.							
7.0-			-							
8.0 — - - - - - -	- - - - - - - - - - -									
.0-	- - - - - - - - - - - - - - - - - - -							of Personal Date Coast Acted 97th Marries		
Remai	rks: -		Fall	Height: III		Cone Base Dia	neter:	,		
			Ham	nmer Wt:		Final Depth:		- Co Ma		
			Prof	pe Type: □PS□		Log Scale:		a syde		

PRIORITY GEOTECHNICAL Priority Geotechnical Tel ax prioritygeotechnicalie Pro ect Name: Bantry Bay Inner arbour E:										
						- Date:				
	on: Bantry⊡Co Cork			N: 00000		Operated by:				
Client:	Bantry Bay □arbour Commissione	rs Pro ect No): PC	Level: -	III m AO□	L				
□epth ɪm□	Readings Blows/100mm	1		am (N100 a		Tor□ue □Nm□				
1.0- - - - - - - - - - - - - - - - - - -	Blows/100mm		age tion purposes after			Nm -				
- - - - - - - - -	-					O CO CAMER TTR NOW 13				
]					nie et mer				
-						dard Duna				
Remai	rks: -		Fall I	leight: 📖	Cone Base Diame	eter:				
			Hami	mer Wt:	Final Depth:					
			Prob	e Type: □PS□	Log Scale:	DIRAKS.				
						£				

PRIORITY GEOTECHNICAL Priority Geotechnical Tel										
Pro ect	Name: Bantry Bay Inner □arbour			E:		- Date:				
	on: Bantry⊡Co Cork			N: 00000		Operated by:				
Client:	Bantry Bay □arbour Commissione	rs Pro ect No:	: PC	Level: - IIII n	n AO 🗆	L				
□epth	Readings Blows/100mm	40		am (N100 alue		Tor⊏ue				
□m□		10	20	30	40	□Nm□				
1.0 -										
2.0 -		;								
3.0		•		ineruse.						
4.0 			nefection purposes of the	anyo						
5.0 - - - - - -		Çorsett of other	Pringer o							
6.0 - - - - - - -										
7.0 - - - - - - -										
8.0 - - - - - - - -	1									
.0 - .0 - - - - - - - - - - - - - - - - - - -	1 - - - - - - - - - - - - - - - - - - -					d December 1 on C. deced 77 h Mov/13				
Remai	'ks: □ ater depth □□□□m□		Fall H	eight:	Cone Base Diamet	er: 🗆				
				ner Wt:	Final Depth:					
				Type: □PS□	Log Scale:					
					-	3				

PRIORITY GEOTECHNICAL Priority Geotechnical Tel										Probe No DP05 Sheet o Date:	
Pro ect	t Name: Bantry Bay Inner □arbou	r				E: 00000					
	on: Bantry⊡Co Cork				N:				Operated by:		
Client:	Bantry Bay □arbour Commission	ers	Pro ect No	p: PC	Level: m AO				L□		
□epth ɪm□	Readings Blows/100mm		1		iagra	am (N100 a	alues)		40		Tor□ue □Nm□
1.0 -		→	→								
2.0		*									
3.0		*				oller use.					
4.0 				.nspection purpo	ses and	any other use.					
6.0			Consent of C	30 yildi							
7.0 -		1									
8.0 - - - - - - - - - - - -			•								
.0 -											
Remai	rks: -		l		Fall H	eight: III		Cone Bas	e Diameter	: 🗆	
					Hamm	ner Wt:		Final Dept	th:		-
					Probe	Type: □PS□		Log Scale			
								<u>.</u>			

PRIORITY GEOTECHNICAL Priority Geotechnical Tel										
Pro ect	Name: Bantry Bay Inner □arbour			E:		Date:				
	on: Bantry⊡Co Cork			N: 00000		Operated by:				
Client:	Bantry Bay □arbour Commissioner	s Pro ect No: PC		Level: - m /	NO 🗆	L□				
□epth ɪm□	Readings Blows/100mm	10	Diagrar 20	n (N100 alues	40	Tor□ue □Nm□				
- - - - - - - - 1.0 –										
2.0 —										
3.0		•		æ.						
4.0 - - -			urgoses and for a	ny other use.						
5.0 - - - -		Consent of Copyright Own	gr.							
6.0 - - - - -		Cangent								
7.0- - - - - -				-						
8.0 - - - - - - - - -										
.0 - 						wante Pribe Lia (2 dated 27th Nov 03				
Rema	rke:ator local company		F-2.1.1.	white core	Cone Boss Birm 1	Depute the second secon				
iveiligi	rks: □ ater le ⊡l □□□m□		-	ght: III	Cone Base Diamete					
			-	r Wt:	Final Depth:					
			Probe T	ype: □PS□	Log Scale:	Helek A				

PRIORITY GEOTECHNICAL Priority Geotechnical Tel										
Pro ect	Name: Bantry Bay Inner □arbou			E: 00000		- Date:				
	on: Bantry⊡Co Cork			N:		Operated by:				
Client:	Bantry Bay □arbour Commission	ers Pro ect N	o: PC	Level: -	L					
□epth ɪm□	Readings Blows/100mm		Diagr	am (N100 alı	ues)	Tor⊡ue ⊡Nm□				
1.0	Blows/100mm	Consental	Restion purposes edited			Nm -				
8.0 - - - - - - -	- - - - - - - -									
.0-	- - - - - - - - - - - - - - - - - - -					d Drawie Poby, Lon 22 dated 72th Nov 03.				
Remai	′ks: -		Fall I	leight:	Cone Base Diame	ter:				
				mer Wt:	Final Depth:	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □				
			Prob	e Type: □PS□	Log Scale:					

PRIORITY GEOTECHNICAL Priority Geotechnical Tel ax prioritygeotechnicalie Pro ect Name: Bantry Bay Inner arbour E:										
		-		E: 00000		- Date:				
	on: Bantry⊡Co Cork			N: 0000		Operated by:				
Client:	Bantry Bay □arbour Commissione	ers Pro ect No): PC	Level: -	□ m AO □	L				
□epth ɪm□	Readings Blows/100mm	1		am (N100 al		Tor□ue □Nm□				
1.0	Blows/100mm	Consent of C	ection purposes at	30		END I STATE AND				
Remai	rks: -		Ham	Height:	Cone Base Diame Final Depth:	At principle of the state of th				

PRIORITY GEOTECHNICAL Priority Geotechnical Tel ax prioritygeotechnicalite Pro ect Name: Bantry Bay Inner arbour E:										
		r				E: 0000			Date	
	on: Bantry⊑Co Cork	-				N: 00000			Operated by:	
Client:	Bantry Bay □arbour Commission	ers	Pro ect No:	PC	Level: m AO				L□	
□epth ɪm□	Readings Blows/100mm		10	Di	agran	n (N100 al	ues)	40		Tor⊡ue ⊡Nm□
1.0			*	Section purpose inglation mer redu						
Remai	rks: -		,	-	Hamme	ype: PS	Cone B Final D Log Sc			THE RESIDENCE OF THE PROPERTY

PRIORITY GEOTECHNICAL Priority Geotechnical Tel ax prioritygeotechnicalie Pro ect Name: Bantry Bay Inner arbour E:											Probe No□ DP10 Sheet □o□□ Date:	
		r										
	on: Bantry⊡Co Cork	-				N: 00000				Operated by:		
Client:	Bantry Bay □arbour Commissione	ers	Pro ect No	PC PC	Level: m AO				L			
□epth ɪm□	Readings Blows/100mm		10		iagraı	m (N100 a			40		Tor□ue □Nm□	
1.0			Consent of C	* dion purpo		Jany Other Lise.					INM I	
Remai	rks: -				Hamme	ight: Der Wt:		Cone Bas Final Dep Log Scale				

Priority Geotechnical Tel						Probe No□ DP11 Sheet □o□□ Date:	
Pro ec	t Name: Bantry Bay Inner □arboo	ır		E: 00000			
	on: Bantry⊡Co Cork			N: 00000		Operated by:	
Client:	Bantry Bay □arbour Commission	ners Pro ect N	lo: PC	Level:m	n AO□	L□	
□epth ɪm□	Readings Blows/100mm		Diagra 10 20	am (N100 alue	40	Tor □ue □Nm□	
1.0				-			
2.0	-						
3.0 -		- - - - - - - - - - - - - -		aruse.			
4.0		- - - - - - - - - - - - - - - - - - -	of inspection purposes of the control of the contro	rany other			
5.0 - - - - - -	-	₹ent of	Consider On the Constitution of the Constituti				
6.0 	-	Con					
7.0 	-	-					
8.0 - - - - - -	_	-					
.0 - .0 - - - - - - -	-	-					
Rema	rks: ater le el allama		Fall H	leight: □□	Cone Base Diamete	er: 🗆	
			Hamr	ner Wt:	Final Depth:]	
			Probe	e Type: □PS□	Log Scale:		
					•		

Priority Geotechnical Tel						Probe No DP12 Sheet □o□ Date:		
	t Name: Bantry Bay Inner □arbour	•		E: 00000				
	on: Bantry⊡Co Cork	1		N: 00000		_	Operated by:	
Client:	Bantry Bay □arbour Commissione	ers Pro ect N	o: PC	Level: -	Ⅲ m AO□		L□	
□epth ɪm□	Readings Blows/100mm		Diagr	am (N100	alues)	40	Tor⊡ue	
1.0		*		—				
2.0 - - - - - - - - - - - - - - - - - -	- - - - - - - - - - - - -							
4.0 -	- - - - - - - - - - - - - - - - - - -		Sinspection purposes edited to	A any other use.				
5.0 	- - - - - - - - - - - - -	Eent of (The Rection net To					
6.0 - - - - - - - -	- - - - - - - - - - -	Car						
7.0 - - - - - - -	- - - - - - - - - - - - - - - - - - -							
8.0	- - - - - - - - - - - - - - - - - - -							
.0 - - - - - - - - - - - -	- - - - - - - - - - - - - - - - - - -							
Remai	rks: -		Fall I	leight: ===	Cone	Base Diameter		
			Hami	mer Wt:	Final [Depth:		
			Prob	e Type: □PS□	Log S	cale:		

Priority Geotechnical Tel						Probe No DP13 Sheet o Date:	
Pro ect	t Name: Bantry Bay Inner □arbou	r		E: 0000			
Location	on: Bantry⊡Co Cork			N: 0000		Operated by:	
Client:	Bantry Bay □arbour Commission	ers Pro ect No	o: PC	Level: - I r	n AO 🗆	L	
□epth ɪm□	Readings Blows/100mm	1	Diagra 20	m (N100 alud	40	Tor⊑ue ⊡Nm□	
- - - - - - 1.0 -		-					
1.0 - - - - - - - - - - - -	- - - - - - -						
3.0	- - - - - - - - - -						
4.0	- - - - - - - - - -		inspection purposes only on the purposes of the position of the purposes of th	any other use.			
5.0 -	- - - - - - - -		inspection purpose the difference of the state of the sta				
6.0 -	- - - - - - - -	Consent of	Ser.				
7.0 -	- - - - - - -						
8.0 - - - - -	- - - - - - - - - - - - - - - - - - -						
- - - - - - - - - -	- - - - - - - -						
Pome	rke:		 		0 5		
Remai	rks: ater le el alloma			eight: III	Cone Base Diame		
				er Wt:	Final Depth:	-	
			Probe	Type: □PS□	Log Scale:		

Priority Geotechnical Tel						Probe No□ DP14 Sheet □o□□ Date:
Pro ect	t Name: Bantry Bay Inner □arbour			E:		
	on: Bantry⊡Co Cork			N:		Operated by:
Client:	Bantry Bay □arbour Commissione	ers Pro ect N	o: PC	Level: -	III m AO□	L□
□epth	Readings		Diagra	am (N100 a	llues)	Tor⊑ue
ım□	Blows/100mm		10 20	3		□Nm□
1.0						
3.0 -		→		atter use.		
4.0 -	- - - - - - - - - - - - - - - - - - -		of the pection purpose south	of starts.		
5.0 - - - - - - -	- - - - - - - - - -	Gotsett of	or view			
6.0 - - - - - - -		V				
7.0	- - - - - - - - - - - - - -					
8.0	- - - - - - - - - - - - - - - - - - -					
.0-	- - - - - - - - - - - - - - - - - - -					Anname Paye I na 2 Ann 77th Nau 13
Remai	′ks: □ ater le ⊡l □□□□m□		Fall H	leight: □□	Cone Base Dia	meter: □ ਫ਼ਿੰ
				mer Wt: □□□□		
			Prob	e Type: □PS□	Log Scale:	
						9

Priority Geotechnical Tel					Probe No DP15 Sheet o Date:	
Pro ect	t Name: Bantry Bay Inner □arbour			E:		Date:
Location	on: Bantry⊡Co Cork			N: 0000		Operated by:
Client:	Bantry Bay □arbour Commissione	rs Pro ect No	PC DD	Level: - m	n AO□	L□
□epth ɪm□	Readings Blows/100mm	10		m (N100 alue	es)	Tor □ue □Nm□
1.0						
2.0						
4.0		•	ingection pures equired for	any other use.		
5.0 —		Consent of c	ingerion du redu Spriight on de redu			
6.0 <u>-</u> - - - - -		Courseil				
7.0 - - - - - - - -				-		
8.0 - - - - - - -						
.0-						
Rema	rks: ater le el alloma		Fall He	ight: 💷	Cone Base Diame	ter: □
			Hamm	er Wt:	Final Depth:	
			Probe	Type: □PS□	Log Scale:	

Priority Geotechnical Tel						Probe No DP16 Sheet o Date:	
	t Name: Bantry Bay Inner □arbour			E: 00000			
	on: Bantry⊡Co Cork	1		N: 00000		Operated by:	
Client:	Bantry Bay □arbour Commissione	rs Pro ect No:	PC	Level: -	m AO□	L	
□epth	Readings		Diagra	am (N100 alu	es)	Tor□ue	
ım□	Blows/100mm	10	20	30	40	□Nm□	
1.0-							
2.0 - -							
3.0 - - - - - - -		•		wet use.			
4.0 - - - - - -			ction that sequired to	E STRY OFFICE			
5.0 - - - -		Consent of con	Specific Owner League				
6.0 - - - - - - -	- - - - - - - - - -	Caus					
7.0 	- - - - - - - - - - -						
8.0 - - - - - - - - -	- - - - - - - -						
.0 - - - - - - - - - - - - - - - - - - -	- - - - - - - - - - -					is Breise I no Chinad Tyth Now ()	
						and Dress	
Remai	rks: ater le el and ma		Fall H	eight: 📖	Cone Base Diamet	er:	
			Hamm	ner Wt:	Final Depth:		
			Probe	Type: □PS□	Log Scale:	DID BANGE	

This page is intentionally blank

Consent of copyright owner required for any other use.

APPENDIX B

BAT DETRIC SUBBOTTO PRODILE

Bantry Inner □arbour Bathymetric □	Report re P = August ====
Sub-bottom Profile Surfey	

Consent of copyright owner required for any other use.

EPA Export 08-04-2016:00:55:20

This page is intentionally blank

Consent of copyright owner required for any other use.

Bantry Inner Harbour Bathymetric & Sub-bottom Profile Survey Report



Client:

Priority Geotechnical Ltd.

Unit 12B

Owenacurra Business Park

Midleton, Co. Cork

Prepared By:

Hydrographic Surveys Ltd.,

The Cobbles,

Crosshaven,

Co. Cork.

Contents

1. Introduction	3
2. Methodology	4
2.1 Horizontal Control	4
2.2 Vertical Datum	4
2.3 Bathymetric Survey	4
2.4 Sub-bottom Profile Survey	
3. Results	
3.1 Bathymetric Results	
3.2 Sub-bottom Profiling Results	
Appendix One Equipment List and Specifications List of Dra ings HS 3 Bathymetry HS 3 A Trac plot and Cross-section Location Plot	
HS 3 III Bathymetry	Scale 1: □□
HS 3 A Trac plot and Cross-section Location Plot	Scale 1:□□
HS 3 B III Interpreted Sediment Thic Iness	Scale 1:□□
HS □3 □C □□□ Interpreted Roc □ Head levels □CD □	Scale 1:□□
HS [3]D [Sub-bottom Cross-sections	Scale 1:□□

1. Introduction:

Hydrographic Surveys Ltd. was instructed by Priority Geotechnical Ltd, to undertake a bathymetric and sub-bottom profiling survey in Bantry Bay Inner Harbour. See drawing HS83_A/09 for survey line locations. The survey was undertaken on 6th August 2009.

The main objectives of the geophysical survey were:

- To determine bathymetric levels to Chart Datum.
- To determine the depth to rock and overburden thickness

Results of the survey are presented in this report and associated drawings

Consent of copyright owner required for any other use.

2. Methodology

Horizontal Control:

Horizontal control and grid was provided by DGPS using satellite broadcast corrections. The navigation unit used was the Trimble DGPS 132 model which provides sub-metre accuracy. The DGPS position was interfaced and logged to Hypack survey software which provides real-time line guidance and continuous logging of position.

The weather conditions were good throughout the acquisition period. Health and safety standards were adhered to at all times.

2.2 Vertical Datum

Datum for the survey is Chart Datum as specified by the Client.

Tides were measured at Bantry Harbour using a Valeport 740 model vented tide gauge. This was installed on the pier in Bantry and recorded tidal height every 5 minutes for the duration of the survey. The tidal height results were reduced to Chart datum using a TBM of +4.31m CD.

2.3 Bathymetric Survey

The ODOM hydrotrac digital echo sounder, used in high frequency mode, was used to record seabed levels in both digital and analogue form. The echosounder has a resolution of 0.01m and is calibrated on site by the bar-check method. The sounder was also interfaced into the Hypack 2008 survey software thereby providing a digital record with related position fixes.

Survey lines were undertaken along predetermined survey lines as specified by the client in drawing IBM0188_T_02_REVA.dwg.

2.4 Sub-bottom Profile Survey

The sub-bottom profiling survey was carried out using the Tritech Seanet System-SeaKing Sub-bottom Profiler. The SeaKing System utilizes CHIRP pulses as it wave source.

Positioning and line guidance were provided using the trimble DGPS unit and Hypack survey software as outlined in sections 2.1 above.

The bathymetric and sub-bottom profile surveys were undertaken concurrently.

3. Results

3.1 Bathymetric Result

The results from the bathymetric survey are plotted in Drawing HS: 83/09. Contours have been added at 0.5m interval.

From the results it is clear the seabed deepens north and west of the pier outside the harbour. As one would expect much of the inner harbour is very shallow, lying above CD and dries out at Low Tide. The -1.5m contour covers the entire eastern section of the harbour. The southern survey line adjacent to the southern bank/wall ranges from -0.3m to -1.9 m CD. The northern bank ranges from 0m to -1.7 m CD with a raised embankment extending out towards the centre of the harbour at the corner adjacent to the north section of XS9 (See HS: 83 A/09).

3.2 Sub-bottom Profiling Results of the client above As requested by the client, survey line track plots with interpreted depth of sediment above rock level have been plotted in drawing HS: 83 B/09. Due to a number of possible reasons a reflector representing rockhead was not identified in all of the survey lines. This may be due to reduced signal penetration and/or noise in some areas of the survey, signal absorption in the dense clay/peat layers or insufficient property contrast between two layers.

Where rockhead has not been identified, the depth of the deepest interpreted reflector has been plotted on Drawing HS: 83 B/09.

The interpreted rockhead levels were reduced to Chart Datum and plotted on Drawing HS: 83 C/09. It appears rock is closest to the surface along the eastern boundary of the

survey. In the rest of the harbour, where rock was interpreted it generally lies 4.1m-7.1m below the seabed surface. Rock levels appear to deepen moving towards the mouth and outside the harbour lying upto 11.7m below the seabed surface.

As requested, the results of this survey are also presented in cross-section form in chart: HS: 83_D/09. Sub-bottom profile interpretation was undertaken with the aid of Borehole information provided by Priority Geotechnical ltd. Logs were provided for the following Boreholes: BH05, BH08, BH09, BH10 and BH15. Boreholes that were crossed by/ or were adjacent to surveys lines have been added to the cross-sections.

A total of five independent reflectors were interpreted in the profiles. A near surface reflector has been marked in red and generally lies within 1m of the surface. This is likely to represent unconsolidated, seawater saturated sediments.

Silt, Sand and Clay layers have been interpreted underlying the surface layer with a Silt/Peat and Cobble layer present on Cross-section 13 to the east of the survey boundary. Rockhead has been interpreted directly below this Silt/peat and cobble layer on Cross-section 13.

Generally on the other cross-sections additional layers of Silts and Peats were interpreted before a rockhead layer.

The interpretative nature and the non-invasive survey methods must be taken into account when considering the results of this survey and Hydrographic Surveys Ltd., while using appropriate practice to execute, interpret and present the data, give no guarantees in relation to the existing subsurface.

Appendix One

Equipment List and Specifications

Equipment List and Specifications

Consent of convince to what required for any other convince to what the convince to wh

Equipment List and Technical Specifications

Navigation

Trimble AgDGPS 132. This unit provides sub-metre differential position accuracy.

The L-band satellite receiver uses a Trimble developed, sensitive design to provide coverage across the entire satellite footprint.

Bathymetry

ODOM Hydrotrac digital echosounder

Hypack 2008 survey software.

The navigation can be interfaced into this software package to provide real-time line guidance and continuous logging of position in both Latitude and Longitude and Irish National Grid.

Valeport model 740 with vented transducer purposetion action retreating

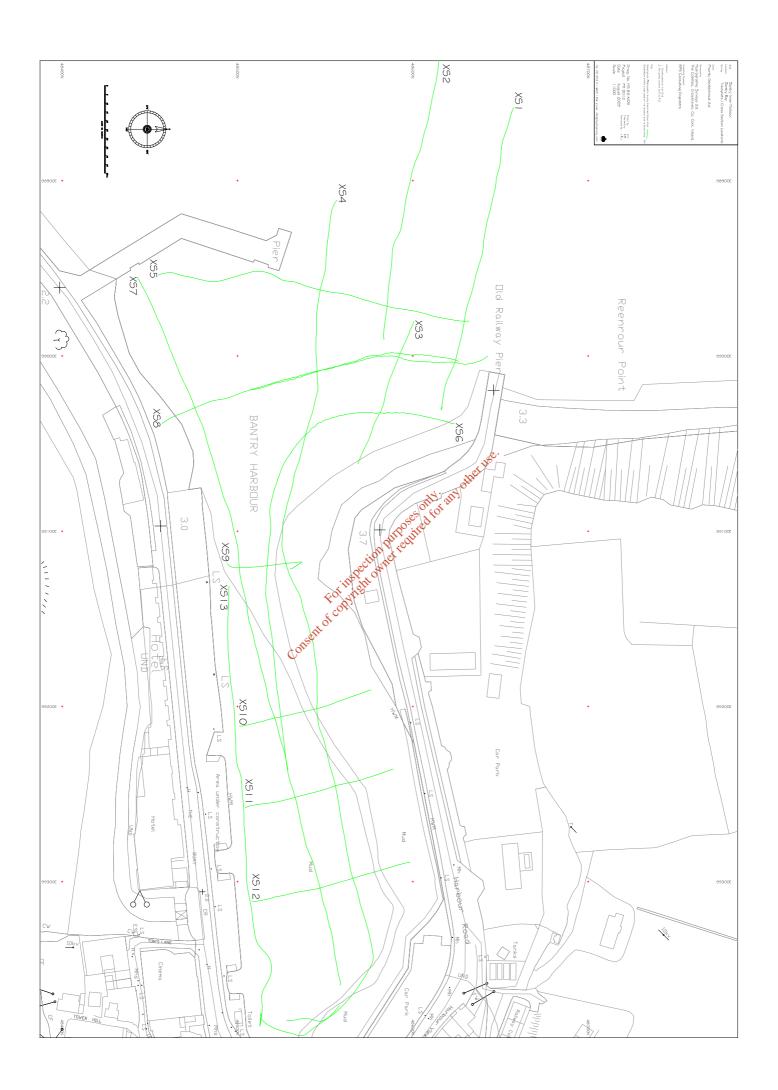
Sub-Bottom Profiler

Tritech Seanet System-SeaKing Sub-bottom Profiler. The SeaKing System utilizes CHIRP pulses as its wave source. SeaNet Pro was utilized as Data acquisition software and interfaced with the Trimble AgDGPS 132 output.

All charts are produced in Autocad Format.

This page is intentionally blank











This page is intentionally blank

APPENDIX C

LABORATOR RESULTS

Natural Moisture Content
Atterberg Limit
Grading analysis
Loss on Ignition
Organic Content
Undrained Triaxial Compression
Shear Box
Triaxial Compression - CU
Oedometer consolidation
Marine Sediment Analysis
UCS
Point Load

Key

Key

Natural Moisture Content

Atterberg Limit
Grading analysis
Loss on Ignition
Organic Content
Undrained Triaxial Compression
Shear Box
Triaxial Compression - CU
Oedometer consolidation
Marine Sediment Analysis
UCS
Consent of Content of Conten

EPA Export 08-04-2016:00:55:21

KEY TO SYMBOLS ON LABORATORY TEST RESULTS SHEETS

UPTBDWH0ss+CP-425μCP γ-425μCP	Undisturbed Sample Piston Sample Thin Wall Sample Bulk Sample - Disturbed Jar Sample - Disturbed Water Sample Acidity/Alkalinity Index % - Total Sulphate Content (acid soluble) g/ltr - Water Soluble Sulphate (Water or 2:1 Aqueous Soil Extract) Calcareous Reaction Chloride Content Plasticity Index % of material in sample passing 425 micron sieve Liquid Limit Plastic Limit Water Content Non Plastic Bulk Density Dry Density Particle Density Undrained/Drained Triaxial Unconsolidated/Consolidated Triaxial Single Stage/Multistage Triaxial Sample Diamater (mm) Remoulded Friexial Test Specimen Triaxial Suction Test Vane Test Vane Test Vane Test Content Angle of Shearing Resistance - Degrees Effective Cohesion Intercept Angle of Shearing Resistance Strain at Failure Failed under 1st Load Failed under 2nd Load Untestable
*	Failed under 1st Load Failed under 2nd Load
##	Excessive Strain
p_o m _v	Effective Overburden Pressure Coefficient of Volume Decrease
c _v Opt	Coefficient of Consolidation
Nat	Optimum Natural
Std Hvy	Standard Compaction - 2.5kg Rammer (¶ CBR) Heavy Compaction - 4.5kg Rammer (§ CBR)
Vib	Vibratory Compaction
CBR Sat m.c.	California Bearing Ratio
MCV	Saturation Moisture Content Moisture Condition Value

Laboratory Symbols	Project	Contract
		Figure



Location

Natural Moisture Content/Atterberg Limits Summary	Job Ref
BS 1377 : Part 2 : 1990 : Clause 3	Job Hei
Bantry Bay Inner Harbour	PC9030

Sample Depth Sample Hole ID % Pass Sample Description MC LL PL Ref (m) Type 425 Very sandy very silty GRAVEL with BH01 8 1.5 D 28 occasional cobbles Very sandy very silty GRAVEL with BH01 11 2 В 72 47 25 76.2 occasional cobbles BH01 12 2.5 D Slightly gravelly sandy organic SILT 79 BH01 14 3 В Slightly gravelly sandy SILT 73 41 32 88.88 Slightly sandy gravelly SILT with some **BH01** 16 3.5 D 60 cobbles Slightly sandy gravelly SILT with some BH01 18 В 4 96 55 44.9 cobbles BH01 20 4.5 D Slightly gravelly organic SILT 22 Slightly sandy slightly gravely organic BH01 23 5.5 D 76 SILT Very silty very sandy GRAVEL BH01 24 6 В 135 88 82.5 47 BH01 Slightly gravelly organic SILT 26 6.5 D 119 BH01 27 7 ဇု**်း**ပြုံရှက်tly gravelly organic SILT В 131 79 52 67.8 BH01 29 7.5 D Slightly gravelly organic SILT 73 BH01 31 8 В Very sandy very silty GRAVEL 72 48 24 67.6 BH02 1 0 В Very silty very gravelly SAND 64 38 26 70.7 BH02 2 0.5 D Very silty very gravelly SAND 30 BH03 1 0 В Very silty very sandy GRAVEL 72 49 23 67 BH03 3 0.35 D Slightly sandy slightly organic SILT 52 BH04 Э 7 В Slightly gravelly sandy SILT 84 53 31 96.6 **BH04** 3 0.5 D Slightly gravelly sandy organic SILT 73 **BH04** 11 2.5 В Slightly gravelly slightly sandy CLAY 47 27 20 96.1 BH04 12 2.5 D Slightly gravelly slightly sandy CLAY 33 **BH04** 16 3.5 D Slightly sandy gravelly CLAY 13



Location

Natural Moisture Content/Atterberg Limits Summary

Job Ref

BS 1377 : Part 2 : 1990 : Clause 3

Bantry Bay Inner Harbour

PC9030

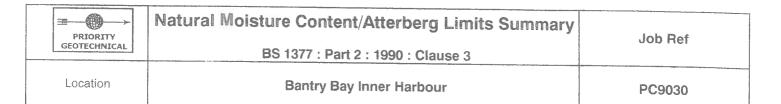
Sample Depth Sample Hole ID Sample Description % Pass MC LL PL Ref (m) Туре 425 **BH05** 1 0 В Slightly gravelly SILT NP 44 NP 77.1 **BH05** 4 1 D Slightly gravelly slightly sandy CLAY 29 BH05 5 1.5 В Slightly gravelly slightly sandy SILT 42 27 15 98.1 7 **BH05** 2 D Slightly gravelly slightly sandy CLAY 35 **BH05** 10 3 D COBBLES with much gravel 32 **BH05** 11 3.5 В COBBLES with much gravel 35 21 55.5 **BH05** 12 4 D COBBLES with much gravel 17 Slightly gravelly sandy CLAY with **BH06** 2 1.5 В 21 some cobbles or on or **BH07** 2 В 1.5 33 72 45 27 51 **BH07** Very saltywery gravelly SAND 10 3.5 В 48 67 42 25 68.7 of Silty very gravelly SAND **BH07** 13 4.15 D 81 **BH07** 23 8 D Slightly sandy SILT 39 **BH07** 25 8.5 В Slightly sandy SILT 37 45 29 16 100 **BH07** 28 9.45 D Slightly sandy SILT 39 Slightly sandy gravelly CLAY with **BH08** 9 2 D 34 some cobbles Slightly sandy slightly gravelly organic **BH08** 10 2.5 D 90 SILT Slightly sandy slightly gravelly organic **BH08** 12 3 В 105 73 32 88.3 SILT Slightly sandy slightly gravelly organic **BH08** 14 3.5 D 85 SILT Slightly sandy slightly gravelly organic **BH08** 17 4.5 D 26 SILT Slightly sandy slightly gravelly organic **BH08** 19 5 В 42 28 14 84.4 SILT **BH08** 20 5.5 D CLAY 29 **BH08** 22 6 В CLAY 41 23 41.3 18



Location

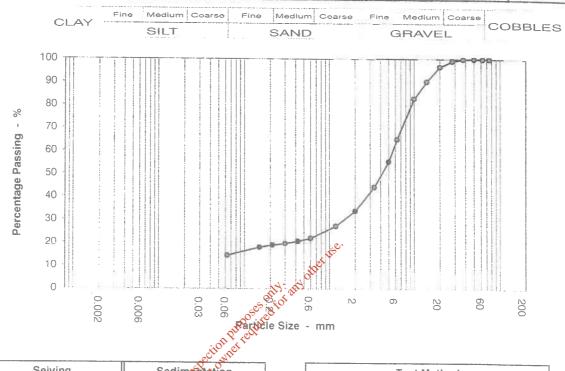
Natural Moisture Content/Atterberg Limits Summary BS 1377: Part 2: 1990: Clause 3	Job Ref
Bantry Bay Inner Harbour	PC9030

Sample Depth Sample Hole ID % Pass Sample Description MC LL PL (m) Ref Type 425 BH11 5 1 В Slightly sandy slightly gravelly CLAY 39 22 17 67.9 BH11 7 6 В Slightly sandy slightly gravelly CLAY 34 21 13 62.9 BH12 2 1.5 В Slightly gravelly sandy SILT 65 67 44 23 90.4 BH₁₂ 3 2 D Slightly gravelly sandy SILT 73 **BH12** 9 3 D Sandy organic SILT 91 BH12 10 3.5 В Sandy organic SILT 118 117 81 97.8 36 BH12 7 19 В Slightly sandy slightly gravelly SILT 28 38 24 93.1 14 BH12 20 7.5 D Slightly sandy slightly gravelly CLAY 29 Slightly sandy stightly gravelly CLAY BH12 21 7.5 D 30 Slightly sandy gravelly CLAY with BH13 2 1.5 В 17 31 19 12 65 some cobbles Very salty very gravelly SAND with BH14 2 1.5 В 32 38 NP NP 85.3 many cobbles BH14 6 5 D Slightly gravelly sandy organic SILT 65 **BH14** 8 5.95 D Slightly gravelly sandy organic SILT 93 **BH14** 9 В 6 Slightly gravelly sandy organic SILT 100 111 72 39 95.4 **BH14** 17 9 В Slightly gravelly slightly sandy CLAY 33 43 26 17 93.2 **BH15** D 4 1.5 Slightly gravelly slightly sandy SILT 24 BH15 7 2.5 В Slightly sandy organic SILT 48 90 42 90.1 **BH15** 8 2.5 D Slightly sandy slightly organic SILT 49 **BH15** 13 D 3.5 Slightly sandy organic SILT 78 **BH15** 3 4 В Slightly gravelly slightly sandy SILT 62 41 21 92 **BH15** 17 4.5 D Silty PEAT 132 BH15 20 5.5 В Slightly gravelly sandy organic SILT 111 66 45 91.7



Hole ID	Sample Ref	Depth (m)	Sample Type	Sample Description	МС	LL	PL	PI	% Pass 425
BH15	21	5.5	D	Slightly gravelly sandy organic SILT					
BH15	23	6.5	D	Slightly gravelly CLAY	26				
BH15	25	7.5	В	Slightly gravelly slightly sandy SILT with many cobbles		44	29	15	96.1
BH15	26	7.5	D	Slightly gravelly slightly sandy CLAY with many cobbles	31				
BH17	7	7.1	В	Slightly sandy gravelly CLAY with some cobbles		35	23	12	53
BH17	8	7.4	D	Slightly sandy gravelly SILT with some cobbles	24				

PRIORITY GEOTECHNICAL	PARTICLE SIZE DISTRIBUTION	Job Ref	PC9030 BH01	
	BS 1377 : Part 2 : 1990 : Clause 9	Borehole / Pit No		
Location	Bantry Bay Inner Harbour	Sample No	6	
		Depth	1.00 m	
Soil Description	Silty very sandy GRAVEL	Sample type	В	



			20 31,
Seivi	ng	Sedimen	tation
Particle Size mm	% Passing	Particle Significant	% Passing
125	100	nsent	
90	100	Cor	
75	100		
63	100		
50	100		
37.5	100		
28	99		
20	97		
14	90		
10	83		
6.3	65		
5	55		
3.35	44		
2	34		
1.18	27		
0.6	22		
0.425	21		
0.3	20		
0.212	19		
0.15	18		
0.063	14		

Test Method				
BS 1377 : Part 2 : 1990				
Sieving	Clause 9.2			
Sedimentation	N/A			

Sample Proportions				
Cobbles	0.0			
Gravel	66.1			
Sand	19.5			
Silt & Clay	14.4			

Grading An	alysis
D100	125.000
D60	5.617
D10	
Uniformity Coefficient	N/A

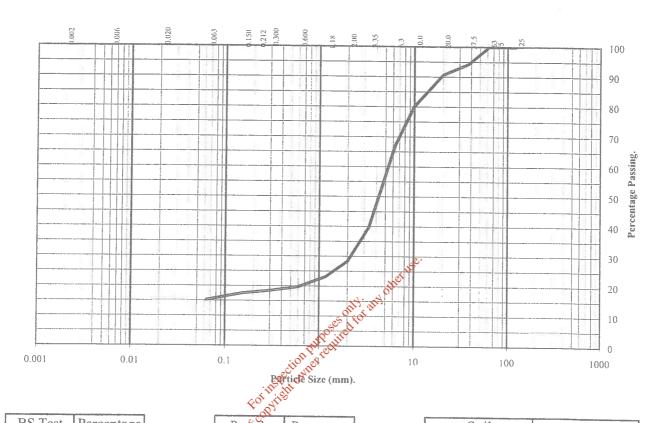
PARTICLE SIZE DISTRIBUTION TEST

BS 1377 Part 2:1990. Wet Sieve, Clause 9.2

Hole Number:

BH01

Depth (m): 1.00



BS Test	Percentage
Sieve	Passing
125	100
75	100
63	100
38	94
20	91
10	80
6.3	67
3.35	40
2.00	28
1.18	23
0.60	20
0.30	18
0.21	18
0.15	17
0.06	15

- N.	
Particle	Percentage
Diameter	Passing
Cor	
0.02	#
0.006	#
0.002	#

Soil	Total
Fraction	Percentage
Cobbles Gravel Sand Silt and Clay	0 72 13 15

Remarks:

#- not determined

Checked by

Date

14/01/10

Approved by

Date

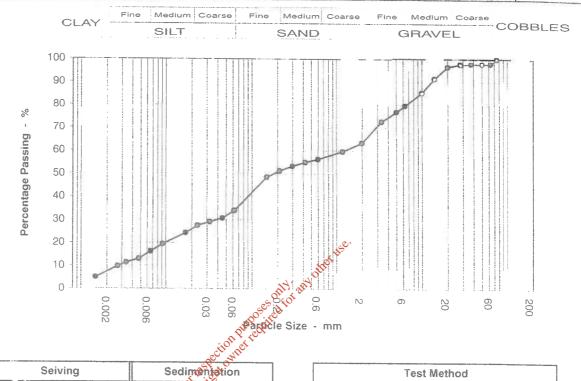


Bantry Inner Harbour

Contract No.: 8847/09 Client Ref No: PC9030



PRIORITY	PARTICLE SIZE DISTRIBUTION	Job Ref	PC9030
GEOTECHNICAL	BS 1377 : Part 2 : 1990 : Clause 9	Borehole / Pit No	BH01
Location	Bantry Bay Inner Harbour	Sample No	11
		Depth	2.00 m
Soil Description Very sandy very silty GRAVEL with occasional cobbles		Sample type	В



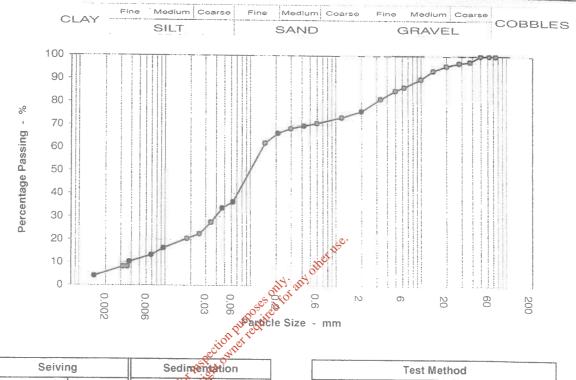
Seiving		Sedimentation	
Particle Size mm	% Passing	Particle Size	% Passing
125	100	CONT.062	34
90	100	0.045	31
75	100	0.033	29
63	98	0.023	27
50	98	0.017	24
37.5	98	0.009	19
28	98	0.007	16
20	97	0.005	13
14	91	0.003	11
10	85	0.003	10
6.3	79	0.002	5
5	77		
3.35	73		
2	63		
1.18	59		
0.6	56		
0.425	55		
0.3	53		
0.212	51		
0.15	48		
0.063	34		

Test N	lethod	
BS 1377 : Part 2 : 1990		
Sieving Clause 9.2		
Sedimentation Clause 9.5		

Sample Proportions		
Cobbles	2.0	
Gravel	34.8	
Sand	29.8	
Silt	26.5	
Clay	6.8	

Grading An	alysis
D100	125.000
D60	1.292
D10	0.003
Uniformity Coefficient	453

PARTICLE SIZE DISTRIBUTION	PARTICLE SIZE DISTRIBUTION	Job Ref	PC9030
PRIORITY GEOTECHNICAL	BS 1377 : Part 2 : 1990 : Clause 9	Borehole / Pit No	BH01
Location	Bantry Bay Inner Harbour	Sample No	14
		Depth	3.00 r
Soil Description Slightly gravelly	Slightly gravelly sandy SILT	Sample type	В



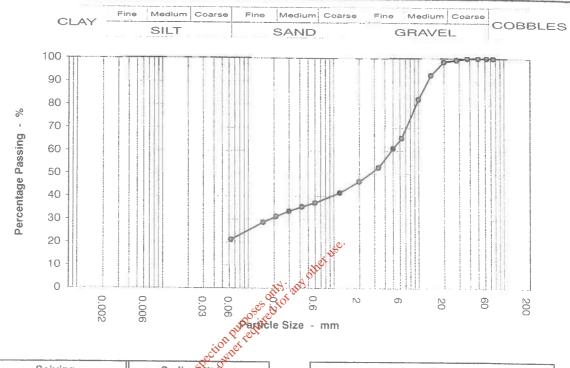
Seivi	Seiving Sedimentation		ation
Particle Size mm	% Passing	Particle Signary	% Passing
125	100	01.8.063	36
90	100	0.047	34
75	100	0.035	28
63	100	0.025	22
50	100	0.018	20
37.5	98	0.010	16
28	97	0.007	13
20	96	0.004	10
14	94	0.004	8
10	90	0.003	8
6.3	86	0.002	4
5	85		
3.35	81		
2	76		
1.18	73		
0.6	71		
0.425	70		
0.3	68		
0.212	66		
0.15	62		
0.063	36		

Test i	Method	
BS 1377 : Part 2 : 1990		
Sieving	Clause 9.2	
Sedimentation	Clause 9.5	

Sample Proportions		
Cobbles	0.0	
Gravel	24.1	
Sand	40.1	
Silt	30.5	
Clay	5.3	

Grading Ana	alysis
D100	125.000
D60	0.143
D10	0.004
Uniformity Coefficient	38

PARTICLE SIZE DIST	PARTICLE SIZE DISTRIBUTION	Job Ref	PC9030
PRIORITY GEOTECHNICAL	BS 1377 : Part 2 : 1990 : Clause 9	Borehole / Pit No	BH01
Location	Bantry Bay Inner Harbour	Sample No	24
		Depth	6.00 n
Soil Description Very silty very sandy GRAVEL		Sample type	В



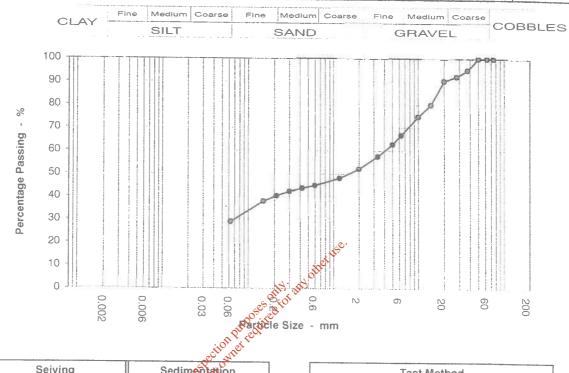
				2 4
	Seivi	ng	Sedimen	ation
	Particle Size mm	% Passing	Particle Size	% Passing
	125	100	nsent.	
	90	100	Cor	
	75	100		
	63	100		
	50	100		
	37.5	100		
	28	99		
	20	99		
	14	93		
	10	82		
	6.3	65		
	5	61		
	3.35	53		
	2	46		
	1.18	41		
	0.6	37		
	0.425	35		
	0.3	33		
Annual Property	0.212	31		
	0.15	29		
	0.063	21		

Test N	lethod
BS 1377 : F	Part 2: 1990
Sieving	Clause 9.2
Sedimentation	N/A

Sample Propo	ortions
Cobbles	0.0
Gravei	53.5
Sand	25.3
Silt & Clay	21.2

Grading Analysis		
D100	125.000	
D60	4.809	
D10		
Uniformity Coefficient	N/A	

PRIORITY	PARTICLE SIZE DISTRIBUTION	Job Ref	PC9030
GEOTECHNICAL	BS 1377 : Part 2 : 1990 : Clause 9	Borehole / Pit No	BH01
Location	Bantry Bay Inner Harbour	Sample No	31
0-11		Depth	8.00 m
Soil Description	Very sandy very silty GRAVEL	Sample type	В



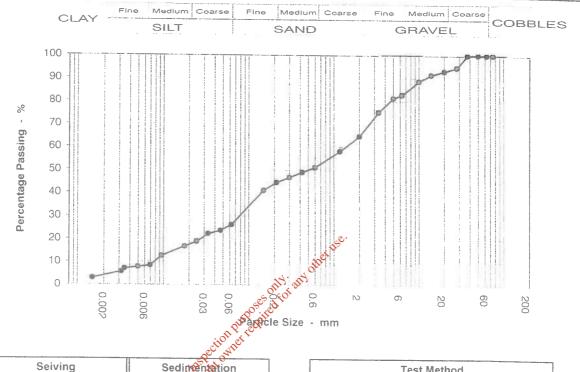
				2 24
	Seivi	ng	Sedimen	ation
	Particle Size mm	% Passing	Particle Size T	% Passing
	125	100	nsett.	
	90	100	Cor	
	75	100		
	63	100		
	50	100		
	37.5	95		
	28	92		
	20	90		
	14	80		
	10	75		
	6.3	67		
	5	63		
	3.35	57		
	2	52		
	1.18	48		
	0.6	45		
	0.425	44		
	0.3	42		
	0.212	40		
j	0.15	38		
-	0.063	29		

Test N	lethod
BS 1377 : F	Part 2: 1990
Sieving	Clause 9.2
Sedimentation	N/A

Sample Propo	ortions
Cobbles	0.0
Gravel	48.1
Sand	23.1
Silt & Clay	28.8

Grading Analysis		
D100	125.000	
D60	4.181	
D10		
Uniformity Coefficient	N/A	

PRIORITY	PARTICLE SIZE DISTRIBUTION	Job Ref	PC9030
GEOTECHNICAL	BS 1377 : Part 2 : 1990 : Clause 9	Borehole / Pit No	BH02
Location	Bantry Bay Inner Harbour	Sample No	1
Call Daniel		Depth	0.00 m
Soil Description	Very silty very gravelly SAND	Sample type	В



Seivi	ng	Sedimen	ation
Particle Size mm	% Passing	Particle Size	% Passing
125	100	Con-8.063	26
90	100	0.047	24
75	100	0.034	22
63	100	0.025	19
50	100	0.018	17
37.5	100	0.010	12
28	95	0.007	8
20	93	0.005	8
14	91	0.004	7
10	89	0.003	6
6.3	83	0.002	3
5	81		
3.35	75		
2	65		
1.18	58		
0.6	51		
0.425	49		
0.3	47		
0.212	44		
0.15	41		
0.063	26		

Test M	ethod
BS 1377 : Pa	art 2 : 1990
Sieving	Clause 9.2
Sedimentation	Clause 9.5

Sample Proportions		
Cobbles	0.0	
Gravel	35.4	
Sand	38.9	
Silt	22.1	
Clay	3.6	

Grading Analysis	
D100	125.000
D60	1.425
D10	0.008
Uniformity Coefficient	178

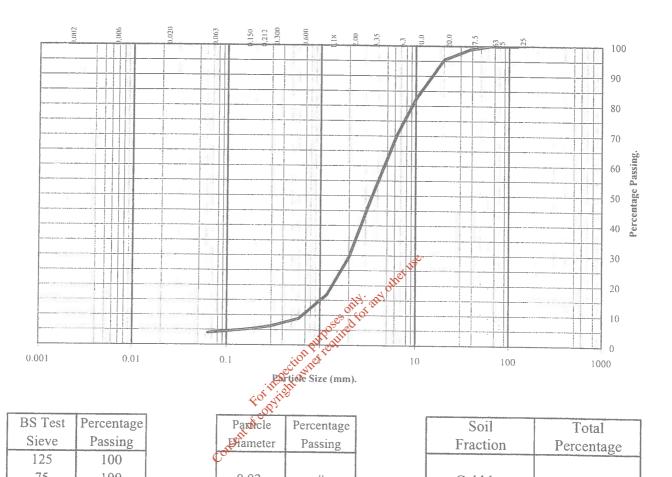
PARTICLE SIZE DISTRIBUTION TEST

BS 1377 Part 2:1990. Wet Sieve, Clause 9.2

Hole Number:

BH02

Depth (m): 1.00



BS Test Percenta	
Sieve	Passing
125	100
75	100
63	100
38	99
20	95
10	82
6.3	70
3.35	48
2.00	29
1.18	17
0.60	9
0.30	6
0.21	6
0.15	5
0.06	4

	-07	
	Paroicle	Percentage
	Flameter	Passing
(
	0.02	#
	0.006	#
	0.002	#

Soil	Total	
Fraction	Percentage	
Cobbles Gravel Sand Silt and Clay	0 71 25 4	

Remarks:

#- not determined

14/01/10 Checked by Date

Approved by

14/01/10

Date



Bantry Inner Harbour

Contract No.: 8847/09 Client Ref No: PC9030



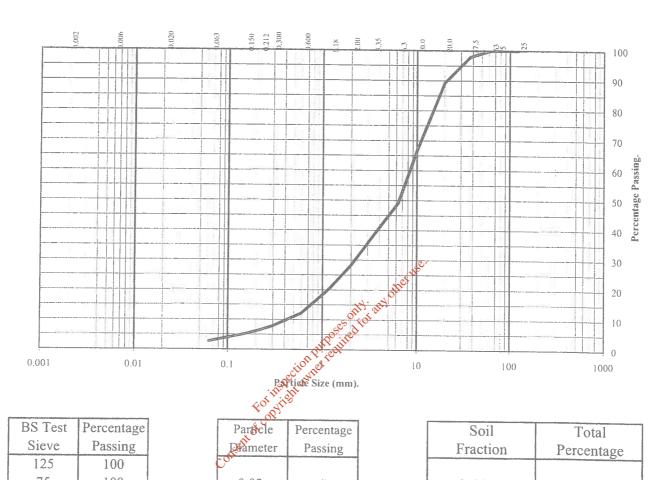
PARTICLE SIZE DISTRIBUTION TEST

BS 1377 Part 2:1990. Wet Sieve, Clause 9.2

Hole Number:

BH02

Depth (m): 3.00



BS Test	Percentage	
Sieve	Passing	
125	100	
75	100	
63	100	
38	98	
20	89	
10	67	
6.3	49	
3.35	38	
2.00	28	
1.18	20	
0.60	12	
0.30	8	
0.21	6	
0.15	5	
0.06	3	

Particle	Percentage
Diameter	Passing
Cor	
0.02	#
0.006	#
0.002	#

Soil	Total
Fraction	Percentage
Cobbles Gravel Sand Silt and Clay	0 72 25 3

Remarks:

#- not determined

Checked by

Approved by

14/01/10

Date



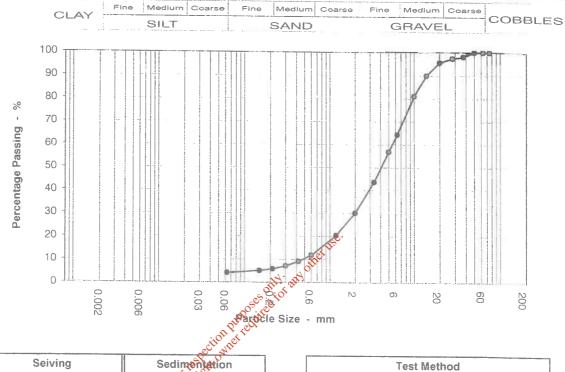
Bantry Inner Harbour

Date

Contract No.: 8847/09 Client Ref No: PC9030



■	PARTICLE SIZE DISTRIBUTION	Job Ref	PC9030
PRIORITY GEOTECHNICAL	BS 1377 : Part 2 : 1990 : Clause 9	Borehole / Pit No	BH02
Location	Bantry Bay Inner Harbour	Sample No	12
		— Depth	6.00 m
Soil Description	oil Description Slightly silty very sandy GRAVEL		В



			2 3/
Seiving		Sedimen	tation
Particle Size mm	% Passing	Particle Sign	% Passing
125	100	TISE III	
90	100	Co	
75	100		A Company of the Comp
63	100		
50	100		de yelder fallet de Character
37.5	98		
28	97		
20	96		
14	90		
10	81		
6.3	64		
5	57		
3.35	43		
2	30		
1.18	20		
0.6	12		
0.425	9		
03	7		
0.212	6		
0.15	5		
0.063	4		

Test Method		
BS 1377 : Part 2 : 1990		
Sieving	Clause 9.2	
Sedimentation	N/A	

Sample Proportions		
Cobbles	0.0	
Gravel	70.0	
Sand	26.0	
Silt & Clay	4.0	

Grading Analysis	
D100	125.000
D60	5.573
D10	0.482
Uniformity Coefficient	12