# APPENDIX G BOREHOLE LOGS AND BOREHOLE LOCATION PLAN



Technic	al advisers	on enviror	nmental is	sues Tele	phone: 01 simile: 01	827 717	7891							
Proje	ct			1 400	onthio. Ot	227710	,007	Client				Date C	omp	leted
	Ear	ls Bar	ton Q	uarry				Bree	ob	n Southern Limited		25/1	0/20	)19
Proje	ct No.						Ground	Level (mAOD)	Co	o-ordinates ()		Boreho	ole N	0.
	BR	E/EA/	CJC/2	2989/01						E 483 559. N 262 573	3.		1	
Cont	ractor							Location				Sheet		
				ation &	Envir	onme	ental Li	td. Earls	s Ba	arton, Northamptonshire		1	of	
Φ	SAM	IPLES	8 T	ESTS					;	STRATA			-	ent/
Scale	Dep	th	Type No	Test Result	Reduc Leve	ea  (1	Depth Thick- ness)			DESCRIPTION		Legend	Water	Instrument/
							0.20	Light orangish b [TOPSOIL]	orow	n sandy CLAY with frequent	rootlets.	<u> </u>		
						ŀ		Light orangish brow	wn s	sandy CLAY.				
-						- ((	0.80)							
							).00)							
						F	1.00							
- 1						-		Brownish orange s medium angular to		dy slightly gravelly CLAY. Gravel	is fine to	<u> </u>		
						(0	0.50)	medium angular to	Sui	o-angular lillit.				
							1.50	0.6						
						ţ		Soft orangish brow	/n v	ery sandy CLAY. Sand is coarse.		H		
						ţ								
-2														
-														
						F '	1.90)							
-						ļ								
-3						Ļ								
-						ţ								
-							3.40					===		
- -						- ((	0.40)	Firm orange brown 3.50 Becoming dar						
							3.80			-		===		
- 1						Ł		Dark grey slightly angular flint.	gra	avelly CLAY. Gravel is fine sub-a	ngular to			
						- (0	0.60)	angalar ilina				==		
-						F	4.40					===	$\nabla$	
						- ((		Dark grey very sa	andy	y gravelly CLAY. Gravel is sub-a	ngular to		<u> </u>	
-						+ "	0.30) 4.70	angular flint and sa				<u> </u>		
						ļ (0	0.30) 5.00	Dark grey sandy ve	ery (	graveriy GLA1.				
-5						+	5.00	Soft grey slight	tly	sandy CLAY. [WHITBY MU	DSTONE			
-						[ (0	0.50)	FORMATION]		-				
						Ŀ	5.50							
						F		END OF BOREHO	DLE					
-						F								
CP.	DUND	 \Λ/ΔΤι	=R					REMAR	3K4	S / INSTALLATIONS	DRILLI	NG		
	COIND	Depth	Depth		Depth	Depth		Drilling from ground lev		5 50m depth using rotary auger method.	Plant: RC4			
Date 25/	10/19	of hole	of casing	to water	struck 4.4	after 20 mins	sealed	-			Crew: M. H		aunde	ers
20/	. 5, . 5										Type and	Diamete	er De	epth n
											Continuou	s Flight	+	•
								LOGGED BY	Υ	R.White	Auger 150	mm		4.00
						_			_		_		_	_

Technic	cal advisers o	n enviror	nmental is	sues Tele	wickshire, phone: 01	827 717	7891			DONLINGEL LOG				
Proje	ect			Facs	simile: 01	827 718	3507	Client				Date Co	omp	leted
	Earl	s Bar	ton Q	uarry				Bree	edor	n Southern Limited		25/10	)/20	)19
Proje	ect No.						Ground	Level (mAOD)	Co	o-ordinates ()		Boreho	le N	٥.
	BRE	/EA/	CJC/2	2989/01						E 483 600. N 262 559			2	
Cont	tractor							Location				Sheet		
	_			ation &	Envir	onme	ental L	td. Earls		arton, Northamptonshire		1	of ′	
<u>e</u>	SAMI	PLES	8 & TE	ESTS			41. T			STRATA			ē	nent II
Scale	Depth	1	Type No	Test Result	Reduc Leve	(1	Depth Thick- ness)			DESCRIPTION		Legend	Water	Instrument/ Backfill
-1 -1 -2 2						- (2	0.15	Light yellowish bro angular flint.	own	ndy CLAY with frequent rootlets. [To sandy slightly gravelly CLAY. Gravelly CLAY. Gravelly CLAY. Gravelly clay.				
-3 -3 -	3.00-3.8	0	В			- (0	3.00	Orangish brown si sub-angular flint.  3.40 - 3.80 Becom		ery gravelly SAND. Gravel is fine to less gravelly.	medium		$\nabla$	
						+	3.80	Orangish brown S	ILT.			×××	$\overline{\Delta}$	
-4 - - -						[ (0	0.70) 4.50					× × × × × × × × × × × × × × × × × × ×		
-						-		Grey clayey SILT.				× × × ×		
						(0	).50)					× × ×		
-5						-[-	5.00	END OF BOREHO	DLE			× × ×		
- - - - -						- - - - - -								
GR	OUNDV	VATE	ΞR	1	1			REMAI	RKS	S / INSTALLATIONS	DRILLI	NG		<u> </u>
		Depth of	Depth of	Depth	Depth struck	Depth after	Depth	Drilling from ground lev		5 0m depth using rotary auger method.	Plant: RC4			
Date 25/	10/19	hole	casing		3.8	after 20 mins	sedie0				Crew: M. H	lughes R.Sa	unde	rs
	-										Type and	Diamete	r De	epth n
											Continuou	s Flight		
								LOGGED B	Υ	R.White	Auger 150	mm 		5.00

Technic	al advisers o	n enviror	nmental is		phone: 01 simile: 01										
Proje	ct			1 400	J	02 0	00.	Client					Date C	omp	leted
	Earl	s Bar	ton Q	uarry				Bree	edor	n Southern Limited			25/1	0/20	)19
Proje	ct No.					(	Ground	Level (mAOD)	Co	o-ordinates ()			Boreho		0.
		E/EA/	CJC/2	2989/01	1					E 483 687. N	262 568	3.		3	
Cont	ractor							Location					Sheet		
				ation &	Envir	onme	ental Li	td. Earl		arton, Northamptonsh	re		1	of ′	
<u>e</u>	SAM	PLES	3 & TE	ESTS						STRATA				ē	nent/
Scale	Depti	h	Type No	Test Result	Reduc Leve	Tul (T	epth hick- ess)			DESCRIPTION			Legend	Water	Instrument/ Backfill
-						+	0.15	Dark brown sliç ∖[TOPSOIL]	ghtly	sandy CLAY with fre	equent r	ootlets .	71/5 7/1/5		
-						(0	0.35) 0.50	Dark brown slightl	-	· ·					
						E		Firm yellow silty C	LAY						
-						ţ									
-1 -						-(1	.20)								
Ē						Ē									
_						E	1 70								
-			_			$\pm$	1.70	Yellowish brown	sligh	tly sandy gravelly CLAY.	Gravel	is fine to	<u> </u>		
- -2	1.80-4.8	30	В			<u> </u>	1.80	medium sub-angu		int. slightly gravelly to very	, gravell	V SAND			
Ē						E		Gravel is fine to m	nediu	m sub-angular flint.	y graven	y SAND.	0		
						E									
-						ţ		2.60 - 3.00 Becom	ning	very gravelly.			0		
						ţ							a	$\nabla$	
-3 -						E							0	<u>~</u>	
[						(3	3.00)						. α .		
						ţ									
-						ŧ									
- -4						F							 a		
						E							0		
-						ţ							a		
-						ţ	4.80						0		
-5						+		Soft grey silty CLA	4Y. [\	WHITBY MUDSTONE FO	RMATIO	N]			
-3 -						[(0	0.70)	5.10 - 5.50 Becom	nina	dark bluish grev.					
-						ļ.	5.50		9	g y.					
-						+	3.30								
-						F									
-6						F		END OF BOREHO	OLE						
-						ŧ									
-						ţ									
<b> </b>						ţ									
GR	JUND								RKS	S / INSTALLATIONS		DRILLI	NG		
Date		Depth of hole	Depth of casing	to	Depth struck	Depth after 20 mins	Depth sealed		vel to	5 50m depth using rotary auger m	ethod.	Plant: RC4			
25/	10/19				3.0							Crew: M. H	ughes R.S	aunde	rs
												Type and	Diamete	r De	epth m
												Continuou			E
								LOGGED B	BY_	R.White		Auger 150	111111		5.50

Technica	al advisers o	n enviro	nmental is	sues Tele	wicksnire, ( phone: 018 simile: 018	27 717	891		•						
Proje	ct			Facs	simile: 018	2/ / 180	507	Client					Date Co	ompl	leted
	Earl	s Baı	rton Q	uarry				Bree	don	Southern Limite	ed		25/10	0/20	)19
Proje	ct No.						Ground	Level (mAOD)	Co	-ordinates ()			Boreho	le No	٥.
	BRE	E/EA/	CJC/2	2989/01						E 483 752.	N 262 569	).		4	
Cont	actor							Location					Sheet		
	Hug	hes l	Explor	ation &	Enviro	nme	ntal L	td. Earls	; Ва	arton, Northampt	onshire		1	of ´	
<u>o</u>	SAMI	PLES	S & TE	ESTS						STRATA				ē	nent/ I
Scale	Depth	1	Type No	Test Result	Reduce Level	<sup>;u</sup>   (T	epth hick- ess)			DESCRIPTION			Legend	Water	Instrument/ Backfill
-						+	0.15	Dark brown slightly Orangish brown sli		ndy CLAY with frequ	ent rootlets. [T	OPSOIL]	× × ×		
-						(0.	.85)	Orangish brown sii	gritiy	y Siity CLAT.			* - × - )  * - × - )  * - × - )  * - × - )		
-1 -					-	+	1.00		velly	y SILT. Gravel is f	ine to medium	n angular	× <sub>o</sub> ×		
-						(0.	.75)	flint.					× × × × × × × × × × × × × × × × × × ×		
-							1.75						× × × × × × × × × × × × ×		
-2	1.75-3.5	0	В			(1.	.75)	Orangish brown versi fine to medium a 1.80 Becoming ver	angul	silty gravelly to very lar flint. Sand is coa avelly.	gravelly SANI irse.	D. Gravel			
-3 3 						(0.	3.50 .50) 4.00	Soft grey CLAY. [W	VHIT	TBY MUDSTONE FO	ORMATION]		0		
-5						- - - - - - - - - - - - - - - - - - -		END OF BOREHO	)LE						
	STIPLE.	\ \ \ <del>.</del>						D=1415		) / INIOTAL : AT'	ONIO	DD::::			
GR(	DUNDV	VATI Depth		Depth	Depth	Depth	Depth			6 / INSTALLATION 4 0m depth using rotary a		DRILLI			
Date		of hole	of casing	to	struck	after 20 mins	sealed		ei (O 4	+ om depm using rotary a	uger тепоб.	Plant: RC4 Crew: M. H		aunde	rs
												Type and	Diamete	r De	epth m
								LOGGED BY	<u>Y</u>	R.Whit	e	Continuou Auger 150	s Flight		4.00
							1								

Technic	al advisers o	on enviro	nmental is	ssues Tele		827 717	7891			DOINEITOE		•			
Proje	ect			Fac	simile: 01	327 718	507	Client					Date Co	ompl	leted
	Ear	ls Baı	rton Q	uarry				Bree	dor	n Southern Limite	d		30/10	0/20	)19
Proje	ct No.					(	Ground	Level (mAOD)	Со	o-ordinates ()			Boreho	le No	٥.
	BRI	E/EA/	CJC/2	2989/01	1					E 483 242.	N 262 563	3.		5	
Cont	ractor							Location					Sheet		
				ration 8	Envir	onme	ental Li	td. Earls		arton, Northampto	nshire		1	of ´	
<u>e</u>	SAM	PLES	S & TI	ESTS			41.			STRATA				er	nent
Scale	Dept	h	Type No	Test Result	Reduc	ea  (T	epth hick- ess)			DESCRIPTION			Legend	Water	Instrument/
					-	+	0.15	Dark brown slightly Brown sandy CLA		ndy CLAY with freque	ent rootlets. [T	OPSOIL]	71/2 71/2		
						(0	0.35) 0.50	DIOWIT SAILUY OLA	١.						
						- (0	0.40)	Reddish brown sar	ndy	CLAY.					
						,	0.90	Firm grey thinly lar		tod CLAV					
1						F		Firm grey triiniy lar	шпа	ited CLAY.					
						ļ									
						-									
						E									
2						+									
						(2	2.60)								
						-									
3						Ė		3.00 - 3.50 Becom	ina :	soft					
								0.00 0.00 2000111	g 、	5511.					
	3.50-5.5	50	В			+	3.50	Yellow very silty SA	V VID	<b>.</b>				$\bar{\Delta}$	
	3.50-5.0		ь			[ (0	0.50)	Tellow very silty 3/	שמור	<i>'</i> -			×		
4						_	4.00	D		ODAVEL O	<b>6</b>		× .		
						F		to sub-rounded flin	indy it an	GRAVEL. Gravel is d sandstone. Sand is	ine to mediur s coarse.	n angular	0000		
						[							0°0		
						-							0.00		
5							2.00)						0000		
J						\2	00)						0.0.04		
						ŀ							0000		
						Ė							0000		
						[	6.00						00.04		
6						+	6.20	Soft grey slightly sa	andy	y CLAY.			000		
						Ŧ		Soft bluish grey CL	AY.	. [WHITBY MUDSTO	NE FORMATI	ON]			
						+	6.50	END OF BOREHO	LE						
						ŧ									
GR	OUND								RKS	S / INSTALLATIO	NS	DRILLI	NG		
Date		Depth of	Depth of	Depth to	Depth struck	Depth after 20	Depth sealed		el to	6 50m depth using rotary a	uger method.	Plant: RC4	0		
	10/19	hole	casing	g water	3.5	mins		-				Crew: M Hu	ughes O.Ab	bot	
												Type and	Diamete	r De	epth r
												Continuous			6 50
								LOGGED B	Y	R.White		Auger 150	111111		6.50

recnnic	al advisers or	n enviro	nmental is				891								
Proje	ct			Facs	simile: U1	527 7 18:	507	Client					Date Co	ompl	leted
	Earl	s Ba	rton Q	uarry				Bree	dor	n Southern Limite	d		30/10	0/20	)19
Proje	ct No.					(	Ground	Level (mAOD)	Co	o-ordinates ()			Boreho	le No	0.
	BRE	E/EA/	CJC/2	2989/01						E 483 350.	N 262 550	).		6	
Cont	ractor							Location					Sheet		
	Hug	hes l	Explor	ration &	Envir	onme	ntal L	td. Earls	з Ва	arton, Northampto	nshire		1	of ´	
<u>e</u>	SAM	PLES	S & TI	ESTS					,	STRATA				ē	hent/
Scale	Depth	1	Type No	Test Result	Reduc Leve	eu (T	epth hick- ess)			DESCRIPTION			Legend	Water	Instrument/ Backfill
-						-	0.15	Dark brown slightly  Dark brown sandy		ndy CLAY with freque	ent rootlets. [T	OPSOIL]	71/2 7/7		
-						(0	.60)	Bank brown sandy	OL,						
						£ ``	0.75								
- - -1	0.75-2.4	0	В				0.70	Reddish brown si angular to rounded		gravelly SAND. Gra t and sandstone.	vel is fine to	medium			
-						-							0		
-						[ (1	.75)						0		
- -2 -						-							0		
-						F	2.50						0		
- - -	2.50-4.0	0	В					Light yellow slight angular to rounded	tly (	gravelly SAND. Gra t and sandstone.	vel is fine to	medium	0		
- -3						-							0		
-						(1	.50)						0		
						[									
- -4						_	4.00						o		
-						-	4.20	Orangish brown ve	-	very sandy GRAV	El Graval is	s fino to	0000	$\bar{\Delta}$	
-	4.30-5.0	0	В					medium angular to	rot	inded flint and sands	tone.	s lille to	0000		
- - -5						(1	.50)						0000		
- - -						ļ							0000		
							5.70						000		
-						_	5 80	∖angular to rounded	d Ílir			/	0		
-6 -								Soft greyish blue C	LA)	Y. [WHITBY MUDST					
-						(0	.50) 6.50	MUDSTONE FORI			JDSTONE.	[WHITBY			
- - -						-		END OF BOREHO	ıLE						
GR	LUNDV	VAT	ER	I	1			REMAR	RKS	S / INSTALLATIO	ONS	DRILLI	NG		
Date		Depth of hole	Depth of casing	to	Depth struck	Depth after 20	Depth sealed		el to	6 50m depth using rotary a	uger method.	Plant: RC4	0		
30/	10/19		-231119	,	4.2	mins						Crew: M Hu			
												Type and Continuou		r De	epth m
								LOGGED B	Y	R.White	)	- Auger 150			6.50

Technic	al advisers o	n enviror	nmental is	sues Tele	phone: 01 simile: 01	827 717	7891								
Proje	ect			1 400	on mile.	<i>327 7 10</i>	.007	Client					Date C	omp	leted
	Earl	ls Bar	ton Q	uarry				Bree	ob	n Southern Limite	d		30/1	0/20	)19
Proje	ct No.						Ground	Level (mAOD)	Co	o-ordinates ()			Boreho	le N	0.
		E/EA/	CJC/2	2989/01						E 483 440.	N 262 494			7	
Cont	ractor							Location	_				Sheet	_	
				ation &	Envir	onme	ental Li	td. Earls		arton, Northampto	nshire		1	of '	
e	SAM	PLES	3 & TE	ESTS					;	STRATA				ē	nent I
Scale	Dept	h	Type No	Test Result	Reduc Leve	<sup>eu</sup>   (1	epth hick- ess)			DESCRIPTION			Legend	Water	Instrument/ Backfill
ļ						+	0.15			ndy CLAY with freque ly sandy thinly lamina		OPSOIL]	7,1% 7,1%		
Ē						Ė		Ordingion brown on	·9···	y sandy triiniy lariina	ica ob tr.				
-  -  -						E									
-						+,,	. 05)								
-1 -						-(1	.65)								
_						Ē									
						E									
-							1.80								
- -2						+((	).50)	orangish brown s medium angular to	sand sul	ly slightly gravelly C o-angular flint.	LAY. Gravel i	is fine to			
						- (	2.30								
_								Orangish brown sa	andy	gravelly CLAY.					
-															
_							.20)								
-3 -						F									
-						-	3.50							$\nabla$	
-	3.50-5.5	50	В			+	0.00	Orangish brown s	silty	very gravelly SAND	. Gravel is a	ngular to	0	<u>¥</u>	
						[ (	0.80)	sub-rounded flint a	and :	sandstone.			a		
-4 -						-	,.00)						0		
-						+	4.30	Grey very silty SAN	ND.				a .		
						Ē		Grey very silty SAI	ND.				×		
_						-							×		
- -5						- (1	.20)						×		
-						F							×		
							5.50						×		
-						+ ,,	).50)	Firm bluish grey C	LAY	. [WHITBY MUDSTC	NE FORMATI	ION]			
						+ (	6.00								
-6 -						E		END OF BOREHO	DLE						
_						-									
-						ļ									
						ŧ									
GR	L OUND\	NATE	ER			_[_		REMAR	RKS	S / INSTALLATIO	NS	DRILLI	NG		
		Depth of		Depth to	Depth struck	Depth after	Depth		el to	6 0m depth using rotary au	ger method.	Plant: RC4			
Date 30/	10/19	hole	casing		3.5	20 mins	Scaleu					Crew: M Hu	ughes O.Ab	bot	
												Type and	Diamete	r De	epth m
												Continuou	s Flight	$\dagger$	
								LOGGED B	Υ	R.White		Auger 150	mm		6.00
						_			_				_	_	_

Technic	al advisers or	n enviror	nmental is		ephone: 0° simile: 01									
Proje	ct							Client				Date C	omp	leted
	Earls	s Bar	ton Q	uarry					edor	n Southern Limited		30/1	0/20	)19
Proje	ct No.					- 1	Ground	Level (mAOD)	Co	o-ordinates ()		Boreho	le N	0.
	BRE	/EA/	CJC/2	2989/01	1					E 483 340. N 262 491	l.		8	
Cont	ractor							Location				Sheet		
				ation 8	Envir	onme	ntal Lt	td. Earl	ls Ba	arton, Northamptonshire		1	of	
Φ	SAMF	PLES	3 & TE	ESTS					,	STRATA			Ŀ	ent/
Scale	Depth	1	Type No	Test Result	Reduc Leve	(T	epth hick- ess)			DESCRIPTION		Legend	Water	Instrument/ Backfill
ŀ						-	0.15			ndy CLAY with frequent rootlets. [T	OPSOIL]	71/2 7/1/2		
ţ						ļ.		Firm brownish gre	ey thi	nly laminated CLAY.				
-						-								
-						Ţ								
-						_ (1	.05)							
-						Ī								
-1						-								
-							1.20	One was the bostons of		Lance OAND Oand in fine to mare the				
-						(0	.30)	Orangish brown v	ery c	clayey SAND. Sand is fine to mediu	m.			
[						_ <u>[`</u>	1.50	Coff harming and	01	A.V.				
-						-		Soft brownish gre	y CL	AY.				
-						Į.								
- -2						-								
- 2						F								
-						+								
-						[ (1	.70)	2.40 2.40 Bass	mina	firm and alightly gravally Cravel	ia fina ta			
t						ŧ		medium sub-angu	ular f	firm and slightly gravelly. Gravel lint.	is line to			
-						-								
-						ţ								
-3						-								
-							3.20	3.10 - 3.20 Becon						
-	3.30-4.30	0	В			$\overline{}$	3.30	Soft light bluish gr				0 0	$\overline{\Delta}$	
ļ	0.00							sub-angular flint a	silly and ir	very sandy GRAVEL. Gravel is a ronstone.	ngular to	0000		
-						-						0.000		
Ī						(1	.00)					0000		
} ,						+ `	- /					0 0 0		
-4 -						F						000		
-						+	4.30					0000		
ļ.						-		Soft greyish blue	CLA'	Y. [WHITBY MUDSTONE FORMA	TION]			
t							4.50	END OF BOREH	OLE					
F						F								
t						ŀ								
	OLINID::	\						DE1/1	DI	O / INIOTAL LATIONS	DD::::	L		
GR	OUNDV	VATE Depth		Depth	Depth	Depth	Depth			S / INSTALLATIONS	DRILLI			
Date		of	of	to	struck	after 20	sealed		evel to	4 50m depth using rotary auger method.	Plant: RC4	0		
30/	10/19	hole	casing	water	3.3	mins					Crew: M H	ughes O.Al	obot	
											Type and	Diamete	er De	epth m
											Continuou Auger 150			4.50
								LOGGED B	3Y	R.White	Auger 130			7.50

Technic	al advisers o	on enviro	nmental is	sues Tele	phone: 01 simile: 01	827 717 827 718	7891 3507							
Proje	ect			1 400	Sirriii 6. 61	027710	,007	Client				Date C	omp	leted
	Ear	ls Baı	rton Q	uarry				Bree	edoı	n Southern Limited		30/1	0/20	)19
Proje	ct No.						Ground	Level (mAOD)	Co	o-ordinates ()		Boreho	le N	٥.
	BRI	E/EA/	CJC/2	2989/01	1					E 483 267. N 262 513	3.		9	
Cont	ractor							Location				Sheet		
	Hug	jhes I	Explor	ation 8	Envir	onme	ental Lt	td. Earl	ls Ba	arton, Northamptonshire		1	of '	
O)	SAM	PLES	S & TE	ESTS					,	STRATA			_	ent/
Scale	Dept	h	Type No	Test Result	Reduc	,eu (1	Depth Thick- ness)			DESCRIPTION		Legend	Water	Instrument/ Backfill
_							0.15			ndy CLAY with frequent rootlets. [T	OPSOIL]	7/1/		
-						ŀ		Firm orangish bro	wn C	CLAY.				
-						-								
-						ļ								
-						(1	1.35)							
-1 -						-								
-						ŧ								
-						-	1.50							
						-				sandy gravelly CLAY. Gravel inded flint and sandstone.	s fine to			
-						(0	).50)	medium angular t	.0 100	inded fillit and sandstone.				
- -2							2.00	Finne and the boar		N AV				
-						‡		Firm orangish bro	own C	JLAY.				
						-								
Ŀ						ŧ								
						[,,								
						- (1	1.60)							
-3 -						F								
-						-								
-						-	3.60							
-						#	3.00			clayey coarse SAND.				
-						<del> </del> (c	).3 <mark>3,70</mark>	Soft dark grey ver	ry sa	ndy CLAY.			$\Box$	
-4 - -	4.00-4.5	50	В			- (0	4.00 0.50)			very sandy GRAVEL. Gravel is unded flint and sandstone.	s fine to	0000	$\bar{\Delta}$	
<b> </b>						+ (	4.50					0.000		
<u> </u>						#		Soft greyish blue						
-						+ ,,		Grey sandy sligh angular to rounde	ntly (	gravelly CLAY. Gravel is fine to	medium	<u> </u>		
- -5						(	0.30) 4 70			7. [WHITBY MUDSTONE FORMAT	ION]			
-							5.00/	END OF BOREH						
-						-								
-						F								
-						ļ								
ļ						‡								
GR	OUND\	WAT	ER	I	1			REMA	RK	S / INSTALLATIONS	DRILLI	NG		<u> </u>
		Depth	Depth		Depth	Depth after		Drilling from ground le		5 0m depth using rotary auger method.	Plant: RC4			
Date 30/	10/19	of hole	of casing	to water	struck 4.0	20 mins	sealed	_			Crew: M H	ughes O.Ab	bot	
]	· <del>-</del>										Type and	Diamete	r De	epth m
											Continuou	s Flight	+	•
								LOGGED B	3Y	R.White	Auger 150	mm		5.00
								1						

Technica	al advisers o	n enviror	nmental is	sues Tele <sub>l</sub> Facs	phone: 01 simile: 018	327 717 327 718	7891 507							
Proje	ct			. 400		,_, , , , ,		Client				Date Co	omp	leted
	Earl	s Bar	ton Q	uarry				Bree	dor	n Southern Limited		29/10	0/20	)19
Proje	ct No.					1	Ground	Level (mAOD)	Со	o-ordinates ()		Boreho	le N	0.
		E/EA/	CJC/2	2989/01						E 483 273. N 262 45	4.		10	
Conti	ractor							Location				Sheet		
L,				ation &	Envir	onme	ental Lt	d. Earls		arton, Northamptonshire		1	of ′	
<u>o</u>	SAMI	PLES	8 TE	ESTS						STRATA			ē	nent/
Scale	Depth	1	Type No	Test Result	Reduc Leve	<sup>5</sup> u  (T	Depth Thick- ness)			DESCRIPTION		Legend	Water	Instrument/ Backfill
						+		Dark brown slightly Firm greyish brown		ndy CLAY with frequent rootlets. [	TOPSOIL]	<u> </u>		
						ŀ		Firm greyish brown	I CL	AT.				
						ŧ								
						ŀ								
- -1						L								
- '						- (1	.85)							
[						F								
						F								
						F								
						F	2.00							
-2								Reddish brown ver	ry cla	ayey SAND. Sand is coarse.				
	(0						).50)							
						_	2.50	Orangish brown ve	rv s	ilty gravelly SAND. Gravel is fine	n medium	0	$\bar{\Delta}$	
	2.70-3.9	0	В			-	2.70	angular flint.				0		
	2.70-0.0					ļ		Orangish brown ve medium angular fli		silty very gravelly SAND. Gravel	is fine to	a		
-3 -						- (C	0.80)	-				0		
-						ļ								
-						-	3.50	Orangish brown ve	erv (	silty very sandy GRAVEL. Grave	is fine to	0		
						(0	).40)	medium angular fli	nt.	silly very sally OITAVEE. Orave	is line to	000		
Ė .						-	3.90	Soft grovish blue C	1 A 1	Y. [WHITBY MUDSTONE FORMA	TIONI	0000		
-4 -						F		Soft greyish blue C	LA	1. [WITH MODSTONE FORM)	TION			
-						ļ								
-						(1	.10)							
-						ļ								
-						ļ	5.00							
-5 -						+		END OF BOREHO	LE					
						ļ								
						ļ								
-						ļ								
-						ļ								
GRO	DUNDV	VATE	ER	I	1			REMAF	RKS	S / INSTALLATIONS	DRILL	İNG		L
Dat-		Depth of	Depth of	Depth to	Depth struck	Depth after	Depth sealed	Drilling from ground leve	el to	5 0m depth using rotary auger method.	Plant: RC4	.0		
Date 29/1	10/19	hole	casing		2.5	after 20 mins	Scaled				Crew: MH	ughes O.Ab	bot	
											Type and	Diamete	r De	epth m
											Continuou			5.00
								LOGGED BY	Υ	R.White	Auger 150	n11111		5.00

Technic	al advisers or	n enviror	nmental is		phone: 01 simile: 01									
Proje	ct			1 400	on mile.	<u> </u>	.007	Client				Date C	omp	leted
	Earl	s Bar	ton Q	uarry				Bree	edor	n Southern Limited		29/1	0/20	)19
Proje	ct No.					(	Ground	Level (mAOD)	Co	o-ordinates ()		Boreho	le N	0.
	BRE	/EA/	CJC/2	2989/01						E 483 214. N 262 471			11	
Cont	ractor							Location				Sheet		
	Hug	hes E	Explor	ration &	Envir	onme	ental Lt	d. Earls	s Ba	arton, Northamptonshire		1	of ·	
<u>o</u>	SAM	PLES	8 & TE	ESTS						STRATA			ū	nent/
Scale	Depth	1	Type No	Test Result	Reduc Leve	Tu (T	epth hick- ess)			DESCRIPTION		Legend	Water	Instrument/ Backfill
-								Dark brown slightly Firm greyish brown		ndy CLAY with frequent rootlets. [T	OPSOIL]	<u> </u>		
ŀ						ŀ		Firm greyish brown	II CL	AT.				
ŀ						<u> </u>	, 05,							
ŀ						[(0	).95)							
-						Ł								
- '					-		1.10	Reddish brown ver	rv si	Ity SAND. Sand is coarse.		×		
						-			,	,		×		
						(0	).70)					× . :		
-						F	1.80					×		
-2	2.00-4.00 B							Firm greyish brown						
- 2	2.00-4.00 B									GRAVEL. Gravel is fine to mediun a sandstone. Sand is coarse.	n angular	0000		
-						-		to dub roundou im	it ai.	a danastono. Cana lo coarso.		000		
-						-						0.000		
-						F						000		
-3						[ /2	2.00)					0000		
- 3 -						F(2	2.00)					0000		
-						F						0000		
-						F		3.50 - 4.50 Gravel	bec	oming fine		00.0	$\bar{\Delta}$	
-						F				<b>g</b>		0000		
						F	4.00					0.00		
-4						F		Soft bluish grey Cl	LAY	[WHITBY MUDSTONE FORMATI	ON]			
-						F								
-						[ (1	.00)							
-						F								
[ -5						F	5.00							
- 3						-		END OF BOREHO	DLE					
-						F								
-						F								
F						F								
F						F								
GR	VDNUC							REMAR	RKS	S / INSTALLATIONS	DRILL	ING		
Date		Depth of	Depth of	Depth to	Depth struck	Depth after	Depth sealed	Drilling from ground lev	vel to	5 0m depth using rotary auger method.	Plant: RC4	10		
	10/19	hole	casing		3.5	20 mins					Crew: MH	ughes O.Ab	bot	
											Type and	Diamete	er De	epth m
											Continuou Auger 150			5.00
								LOGGED B	Υ	R.White	Auger 100	// I I I I I		5.00

Project No.   Bright   Start	Technic	al advisers o	n enviro	nmental is	sues Tele Facs	phone: 01 simile: 01	827 717 827 718	7891 3507							
Project No.   Project No.   Environmental List   Continues ()   E 483 134. N 262 416.   12   12   13   15   15   15   15   15   15   15	Proje	ect			1 000		02	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Client				Date C	omp	leted
SRE/EX-ICJC/2989/01		Earl	s Ba	rton Q	uarry				Bre	edo	n Southern Limited		29/1	0/20	)19
	Proje							Ground	Level (mAOD)	Co	· ·				0.
SAMPLES   STESTS   STEATA   STEATS			E/EA/	CJC/2	2989/01						E 483 134. N 262 416			12	
STRATA	Conf		_							_				_	
1						Envir	onme	ental Li	td. Ear		•		1	of	
1	<u>e</u>	SAM	PLES	S & TI	ESTS			N 41.			STRATA			er	nent II
Firm orangish brown CLAY.  1.40 Reddish brown very sandy CLAY.  1.40 Soft orangish brown CLAY.  2.20-6.20 B B Frown silty very sandy GRAVEL. Gravel is angular to a sub-rounded first and sandstone. Sand is coerse.  3 Soft orangish brown CLAY.  4.90 Soft orangish brown CLAY.  2.70 Soft orangish brown Very sandy gravely CLAY. Gravel is angular to a sub-rounded first and sandstone. Sand is coerse.  5 Soft orangish brown very sandy gravely CLAY. Gravel is angular to a sub-rounded first and sandstone. Sand is coerse.  5 Soft orangish brown very sandy gravely CLAY. Gravel is angular to a sub-rounded first and sandstone. Sand is coerse.  6 Soft orangish brown very sandy gravely CLAY. Gravel is angular to a sub-rounded first and sandstone. Sand is coerse.  6 Soft orangish brown very sandy gravely CLAY. Gravel is angular to a sub-rounded first and sandstone. Sand is coerse.  8 Soft orangish brown very sandy gravely CLAY. Gravel is angular to a sub-rounded first and sandstone. Sand is coerse.  8 Soft orangish brown very sandy gravely CLAY. Gravel is angular to a sub-rounded first and sandstone. Sand is coerse.  8 Soft orangish brown very sandy gravely CLAY. Gravel is angular to a sub-rounded first and sandstone. Sand is coerse.  9 Soft orangish brown clay.  1.4.90 Soft orangish brown clay	Sca	Depti	h				ea  (1	Γhick- ness)					Legend	Wat	Instrur Backfil
Commonweight   Comm	-						+	0.15				OPSOIL]	7. 7.		
1.10 Reddish brown very sandy CLAY.  1.40 Soft orangish brown CLAY.  (0.80) 2.20 Brown silty very sandy GRAVEL. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  (2.70)  3.0 Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  (2.70)  5.70 Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  (1.10)  8.0 Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  (1.10)  8.0 Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  (1.10)  8.0 Firm greyish blue CLAY. [WHITEY MUDSTONE FORMATION]  8.0 Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  8.0 Firm greyish blue CLAY. [WHITEY MUDSTONE FORMATION]  8.0 Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  8.0 Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  8.0 Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  8.0 Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  8.0 Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  8.0 Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  8.0 Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  8.0 Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  8.0 Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  8.0 Soft orang	-						+		Filli orangish bio	VVIIC	JLAT.				
Reddish brown very sandy CLAY.    1.40   Soft orangish brown CLAY.							(0	).95)							
Reddish brown very sandy CLAY.    1.40   Soft orangish brown CLAY.							-								
2 2.20-6.20 B  Brown silty very sandy GRAVEL. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  (2.70)  4.90  5.00  5.00  6.30  6.30  6.30  6.30  6.30  Firm greyish blue CLAY. [WHITBY MUDSTONE FORMATION]  END OF BOREHOLE  SEMARKS / INSTALLATIONS  Date  Date  Depth   Depth   Depth   Struck   Online   Onlin	-1 -							1.10	B 1511		LOLAY				
2 220-6 20 B    Continuous Fight    -						F	1.40	Readish brown ve	ery sa	andy CLAY.					
2.20 B B B B B B B B B B B B B B B B B B B							-		Soft orangish bro	wn C	LAY.				
2.20 B B B B B B B B B B B B B B B B B B B	-						- (0	).80)							
Brown sitty very sandy GRAVEL. Gravel is angular to \$\bigcup_{0} \bigcup_{0} \	- -2						F,,	,							
Soft orangish brown very sandy gravelly CLAY. Gravel is angular    A	-	2 20-6 2	20	R			+	2.20	Brown silty ve	r\/ c	andy GRAVEL Gravel is and	rular to	00.00		
-5   -4   -4   -4   -4   -4   -4   -4		2.20-0.2	-0				E		sub-rounded flint	and	sandstone. Sand is coarse.	guiai to	0 1.0		
-5   -5   -5   -5   -5   -5   -5   -5	-						-						000		
4.90  Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  Brown silty very sandy GRAVEL. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  Brown silty very sandy GRAVEL. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  Firm greyish blue CLAY. [WHITBY MUDSTONE FORMATION]  END OF BOREHOLE   GROUNDWATER  REMARKS / INSTALLATIONS  DRILLING  Plant: RC40  Crew: M Hughes O Abbot  Type and Diameter Depth more in the struck of the s							+						0000	$\nabla$	
GROUNDWATER  GROUNDWATER  Depth of hole casing between the same of the water of hole casing bealed hole casing bealed by the water of hole casing bealed by the same of hole cas	-3 -						E						0 1 0	<u>-</u>	
Carron   C							E						0.00		
4.90	-						(2	2.70)					0000		
4.90  -5   Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  -5   Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  -6   Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  -6   Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  -7   Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  -8   Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  -8   Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.	-						+						0000		
GROUNDWATER  Date  Depth of hole casing water  Depth of hole water Depth of hole water Depth of hole water Depth mater Depth water Depth wat	-4						F						0000		
A 4.90  - 4.90  - 5.20  Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  - 5.20  Brown silty very sandy GRAVEL. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  - 6.30  - 6.50  Firm greyish blue CLAY. [WHITBY MUDSTONE FORMATION]  END OF BOREHOLE   REMARKS / INSTALLATIONS  DRILLING  Plant: RC40  Crew: M Hughes O. Abbot  Type and Diameter   Depth orange and point point sealed points. Sand is coarse.  - 7.00  - 9.00  -	-						-								
A.90  4.90  Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  Brown silty very sandy GRAVEL. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.  (1.10)  (1.10)  6.30  Firm greyish blue CLAY. [WHITBY MUDSTONE FORMATION]  END OF BOREHOLE   REMARKS / INSTALLATIONS  DRILLING  Plant: RC40  Crew: M Hughes O.Abbot  Type and Diameter   Depth method.    Type and Diameter   De	-						-						0.00		
Soft orangish brown very sandy gravelly CLAY. Gravel is angular to sub-rounded flint and sandstone. Sand is coarse.	-						F						I_		
Second   S	-5						Ŧ	4.90	Soft orangish bro	wn v	verv sandv gravelly CLAY. Gravel is	angular			
sub-rounded flint and sandstone. Sand is coarse.  (1.10)  (1.1							_	5.20	to sub-rounded fli	int ar	nd sandstone. Sand is coarse.				
GROUNDWATER  Date  Depth of hole casing hole casing water by the continuous Fight water 150 mm is a continuous Flight August 150 mm is a continuous Flight Augu	-						+		sub-rounded flint	ry s and	andy GRAVEL. Gravei is and sandstone. Sand is coarse.	guiar to	0.00		
GROUNDWATER  Depth of hole casing water   Depth of hole   Dept	Ē						E						0000		
GROUNDWATER  Date  Depth of hole casing water   Depth of hole	-						[ (1	1.10)					0000		
GROUNDWATER  Depth of hole casing water   Depth of hole   Depth water   Sum of hole   Depth water	-6 -						-						0 10		
GROUNDWATER  Date  Depth of hole casing water  Depth of hole  Dept	-						+		Firm grovish blue		V IMPLIED MI IDSTONE EODMA	TION1	0 0		
GROUNDWATER  Date  Depth of hole casing water   Depth to water   Depth w	[						+	6.50			THE PORTURE FOR WATER	i i O i Nj			
Date  Depth of of hole casing water   Depth of hole casing   Depth of hole   D	ļ.						ļ		·						
Date  Depth of of hole casing water   Depth of hole casing   Depth of hole   D			A / A =							DIC	0 / INIOTAL : ATION: 0	DDU			
Date of hole casing water struck after 20 mins sealed 29/10/19  29/10/19  3.0  Type and Diameter Depth m Continuous Flight Auger 150mm 6 50	GR	UUND\			Depth	Depth	Denth	Denth							
29/10/19  3.0  Crew: M Hughes O.Abbot  Type and Diameter Depth m  Continuous Flight  August 150mm  6.50	Date		of	of	to		after 20	sealed		evel to	o ourn depth using rotary auger method.	Plant: RC4	U		
Type and Diameter Depth m  Continuous Flight	29/	10/19	riole	casing	water	3.0	mins		+			Crew: M H	ughes O.Al	bot	
Continuous Flight August 150mm 6 50	23/	. 3/ 13				0						Type and	Diamete	er De	epth m
LOGGED BY R.White Auger 150mm 6.50												Continuou	s Flight	+	•
									LOGGED E	3Y	R.White	Auger 150	mm		6.50

Technic	al advisers on er	nvironmenta		rwickshire, ephone: 018		1			DONLINGEL LO	9			
Proje	ect		Fac	simile: 018	27 718507		Client				Date C	omp	leted
,		Barton	Quarry					dor	n Southern Limited		29/1	•	
Proje	ect No.		<u> </u>		Gro	ound L	evel (mAOD)	Со	o-ordinates ()		Boreho	ole N	0.
	BRE/E	A/CJC	/2989/0	1					E 483 127. N 262 48	6.		13	
Cont	ractor						Location				Sheet		
			oration 8	& Enviro	nment	al Lto	d. Earls		arton, Northamptonshire		1	of	
<u>e</u>	SAMPL	.ES &	TESTS					,	STRATA			ē	nent I
Scale	Depth	Type No	Test Result	Reduce Level	nes	s)			DESCRIPTION		Legend	Water	Instrument/ Backfill
					0		Dark brown slightly Soft orangish brow		ndy CLAY with frequent rootlets. [	TOPSOIL]			
					-		son orangion brow	• •					
					(1.15	5)							
- -1					Ė								
					1	.30	2iah h		. may ally OLAV				
					Ē	'	Orangish brown sa	andy	gravelly CLAY.				
					-						- <u>-</u>		
-2					(1.60	)							
					Ē,						<u></u>		
					ļ								
						2.90					<u></u>		
-3	3.10-4.50 B					3.10	Orangish brown ve angular to sub-rou	ery s Inde	silty gravelly SAND. Gravel is fine d flint and sandstone.	to medium	000	Ā	
	3.10-4.50 B					7	Orangish brown	silty	very sandy GRAVEL. Gravel	is fine to	00.00		
					Ė		nedium angular to	sub	b-rounded flint and sandstone.		.000		
					_(1.70	)					0000		
-4 :					F(	,					0 10		
					-						0000		
· ·					[	.80					0000		
-5					+				Y. [WHITBY MUDSTONE FORMA				
					(0.60	90 i	Dark greyish blเ MUDSTONE FOR	ue MAT	thinly laminated MUDSTONE.	[WHITBY			
· ·						5.50							
					ļ		END OF BOREHO	DLE					
-6					E								
					ŧ								
					-								
· ·					Ė								
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					<u> </u>								
CD	L OUNDW <i>A</i>	L VTED			_t	-	DEMAG	⊋k′¢	S / INSTALLATIONS	DRILL	ING		
GR	De	pth Dep			Depth D	Depth			5 50m depth using rotary auger method.	Plant: RC4			
Date	0	of of of ole casi	to	struck	after so	ealed	Simily north ground lev	. 5, 10	5 55 dopar doing rotally dagor motified.	FIAIIL RC4	••		
20/	10/19	, c casi	vvalci	3.0	mins					Crew: MH	ughes O.Al	obot	
231	13/13			3.5						Type and	Diamete	er D	enth m
										Continuou	s Flight		-Pui III
							LOGGED B	Υ	R.White	Auger 150	mm -		5.50

Technic	al advisers or	enviror	nmental is	sues Tele Facs	phone: 01 simile: 01	827 717 827 718	7891 507								
Proje	ct			1 400	Sirriilo. 01	027 7 10		Client					Date C	omp	leted
	Earls	s Bar	ton Q	uarry				Bree	obe	n Southern Limited			29/1	0/20	)19
Proje	ct No.					- (	Ground	Level (mAOD)	Co	o-ordinates ()			Boreho	le N	٥.
	BRE	/EA/	CJC/2	2989/01	1					E 483 074. N	1 262 523	3.		14	
Cont	ractor							Location					Sheet		
	Hugl	nes E	Explor	ation &	Envir	onme	ental L	td. Earls	s Ba	arton, Northampton	shire		1	of '	1
Φ	SAMF	LES	8 T	ESTS					;	STRATA				_	ent/
Scale	Depth		Type No	Test Result	Reduc	ieu (T	epth hick- ess)			DESCRIPTION			Legend	Water	Instrument/ Backfill
-						-	0 15			ndy CLAY with frequent	rootlets. [T	OPSOIL]	711/		
-						ŧ		Firm yellowish grey	y CL	.AY.					
						(0	).85)								
-						ŧ	1.00								
-1 - - -						(0	).50)	Orangish brown vangular flints.	very	sandy slightly grave	ly CLAY.	Gravel is			
						+	1.50	Orangish brown sa	andv	/ CLAY			= := :		
-						ŧ		Orangion brown oc	ر ۱۰۰۰	<b>02</b> /11.					
-2						[-(1	.00)								
-						ŧ									
-	2.50-5.00		В			+	2.50	Orangish brown	siltv	very sandy GRAVEL	Gravel is	s fine to	0000		
-			_			ŧ		medium angular to	sul	o-rounded flint and sand	dstone.		000		
-3													0000		
-													0000	_	
						E							0000	$\overline{\Delta}$	
-						ŧ							000		
-4						F							°0 0°0		
-						(3	3.60)						0000		
						E							0000		
-						ŧ							0000		
-5						F		5.00 - 6.00 Gravel	bec	oming coarser.			0000		
						Ė				ŭ			0000		
-						E							000		
-						Ė							000		
-6 -							6.10	0		MUDOTONE BAUL	ITD\/	DOTONE	0000		
						(0	0.40) 6.50	Stiff greyish b	lue	MUDSTONE. [WH	ITBY MU	DSTONE			
-						+	0.50	END OF BOREHO	DLE						
-						Ē									
-7 -						-									
						Ē									
-						ţ									
Ē						Ę									
GR	VDNDC	/ATI	ER					REMAR	RKS	S / INSTALLATION	 IS	DRILLI	NG		
Date	I	Depth of	Depth of	to	Depth struck	Depth after 20	Depth sealed	Drilling from ground lev		6 50m depth using rotary auge		Plant: RC4			
29/	10/19	hole	casing	water	3.5	mins		-				Crew: M Hu	ughes O.Al	bot	
												Type and	Diamete	er De	epth m
İ												Continuou			0.50
						LOGGED B	Υ	R.White		Auger 150	mm		6.50		

Technica	al advisers on	environ	mental is	sues Tele	phone: 018 simile: 018	27 717	891							
Proje	ct			1 403	minic. 010.	.7 7 100	307	Client				Date Co	omp	leted
	Earls	Bar	ton Q	uarry				Bree	obe	n Southern Limited		29/10	)/20	)19
Proje	ct No.						Ground	Level (mAOD)	Co	o-ordinates ()		Boreho	le N	0.
	BRE/	EA/	CJC/2	2989/01						E 483 037. N 262 4	63.		15	
Cont	ractor							Location				Sheet		
	Hugh	es E	Explor	ation &	Enviro	nme	ntal Lt	d. Earls	s Ba	arton, Northamptonshire		1	of '	
ω	SAMP	LES	& TE	ESTS					;	STRATA			_	ent/
Scale	Depth		Type No	Test Result	Reduce Level	<sup>u</sup>   (T	epth hick- ess)			DESCRIPTION		Legend	Water	Instrument/ Backfill
-					-	+	0 15			ndy CLAY with frequent rootlets.	[TOPSOIL]	<u> </u>		
						Ė		Firm yellowish gre	y CL	AY.				
-						(0	.95)							
[ -1						E	1.10							
-							1.10	Orangish brown ve	ery c	clayey gravelly SAND. Gravel is a	ngular flint.			
-						(0	.70)							
						Ė	1.80							
- -2	2.00-4.00		В			+	2.00	Orangish brown si		andy CLAY. very sandy GRAVEL. Grave	io fino to	0 . 0 .		
	2.00-4.00		Ь			Ē		medium angular to	siity sul	o-rounded flint and sandstone.	is line to	0000		
						Ė						000		
-								2.60 - 3.00 Gravel	is b	lackish brown.		0.000		
-3							.20)	3.00 - 4.00 Gravel	is o	rangish brown and coarse.		0000	$\overline{\triangle}$	
-												000		
												0000		
-						ļ						0000		
-4						F	4.20					0000		
						Ŧ	0	Soft greyish blue C	CLA'	Y. [WHITBY MUDSTONE FORM	ATION]			
-						(0	.80)							
						Ē	5.00							
-5 [						Ē	0.00	END OF BOREHO	DLE					
-						ļ								
						Ė								
-						ļ								
-6 -						Ē								
-						ļ								
						Ē								
-						ļ								
-7 -						F								
<u> </u>						Ė								
						F								
						Ė					<u>,                                      </u>			
GR	DUNDW							REMAR	RKS	S / INSTALLATIONS	DRILL	ING		
Date		epth of	Depth of	Depth to	Depth struck	Depth after 20	Depth sealed	Drilling from ground lev	el to	5 0m depth using rotary auger method.	Plant: RC4	10		
	hole casing water 20 min 29/10/19 3.0										Crew: M H	lughes O.Ab	bot	
											Type and	Diamete	r De	epth m
											Continuou Auger 150			5.00
								LOGGED B	Υ	R.White	Auger 100	,,,,,,,,		5.00

Technic	al advisers o	n enviror	mental is		phone: 018 simile: 018										
Proje	ct			1 000			,,,,	Client					Date C	omp	leted
	Earl	s Bar	ton Q	uarry					edoı	n Southern Limite	d		29/1	0/20	)19
Proje	ct No.					(	Ground	Level (mAOD)	Co	o-ordinates ()			Boreho	le N	0.
		E/EA/	CJC/2	2989/01						E 483 034.	N 262 386	S.		16	
Cont	ractor							Location					Sheet		
				ation &	Enviro	nme	ntal Lt	td. Earl		arton, Northampto	nshire		1	of ´	
<u>e</u>	SAMI	PLES	8 T	ESTS					,	STRATA				er	nent/
Scale	Depth	ı	Type No	Test Result	Reduce Level	<sup>'a</sup>   (TI	epth hick- ess)			DESCRIPTION			Legend	Water	Instrument/ Backfill
-						+	0 15	Dark brown slightl		ndy CLAY with frequency	ent rootlets. [T	OPSOIL]	71/2 71/2		
-						Ī		Film drangish bro	wii C	JLAT.					
-						ŧ.,									
[ -1						[ (1.	.35)								
						Ė									
-						-	1.50	O		and Ol AV Candia					
	1.70-4.5	50	В			╁	1.70	1.60 - 1.70 Becor	ery s ming	sandy CLAY. Sand is g slightly gravelly. Gr	coarse. avel is fine to	medium /	0000		
- -2						Ė		\angular flints.	silty	v very sandy GRAV	FI Gravel is	s fine to	000		
-						F		medium sub-angu		to sub-rounded flint,			0000		
								Sand is coarse.					0000		
-													0000		
-3													0.00	$\nabla$	
-		[ (2											0000		
						Ē							0000		
Ė						Ė							0000		
-4 -						F		4.00 - 4.50 Ra	re d	cobbles of rounded	flint and s	andstone	0,00		
-						Ė	4.50	approximately 7cm	n in	diameter.			0.00		
-						+		Soft orangish brow	wn s	andy CLAY.					
						[ (0.	5.00								
-5 - -						(0.	.50)	Light greyish blu sub-angular limes	ie s tone	lightly gravelly CLA . [WHITBY MUDSTO	Y. Gravel is NE FORMATI	medium ION]			
-						-	5.50	END OF BOREHO	OLE						
-						Ē									
-6 -						+									
						Ē									
-						Ė									
						Į.									
-7 :						Ē									
						ļ									
<u> </u>						Ė									
-						ŧ									
GR	OUNDV	VATE	ΞR		•			REMA	RK	S / INSTALLATIO	NS	DRILLI	NG		•
Date		Depth of hole	Depth of casing	to	Depth struck	Depth after 20 mins	Depth sealed		vel to	5 50m depth using rotary a	uger method.	Plant: RC4			
29/	10/19				3.0			1				Crew: M H	ughes O.Al	obot	
												Type and	Diamete	er De	epth m
											Continuou			F F0	
							LOGGED B	Υ	R.White		Auger 150	111111		5.50	

Technic	al advisers or	n environ	mental is	sues Tele	phone: 018 simile: 018	27 717	7891								
Proje	ct							Client					Date C	omp	leted
	Earls	s Bar	ton Q	uarry					dor	n Southern Limited			28/1	0/20	)19
Proje	ct No.					(	Ground	Level (mAOD)	Co	o-ordinates ()			Boreho		0.
		/EA/	CJC/2	2989/01						E 484 636. N	262 051			17	
Cont	ractor	L		4: 0			4	Location	. D.	antan Nanthanantan a	_:		Sheet	- <b>.</b> .	4
				ation &	Enviro	nme	entai Li	.d. Earis		arton, Northamptonsl	nire		1	of	
Scale	SAME					. D	epth			STRATA				Water	men iii
S	Depth	1	Type No	Test Result	Reduce Level	<sup>;u</sup>   (T	hick- less)			DESCRIPTION			Legend	× ×	Instrument/ Backfill
						+	0 15	Dark brown slightly Greyish brown silty		ndy CLAY with frequent r AY.	ootlets. [T	OPSOIL]	× × ×		
-						ŧ		,					* × ×		
-						(1	.25)						× ×		
-1						F							× × ×		
-						ŧ	1.40						× ×		
-						(0	).42) 1.82	Brownish orange gravel is fine angul	very lar t	/ silty gravelly SAND. S o sub-angular flint.	and is co	arse and	0		
-2	2.00-2.6	0	В			Ī	2.00	Brownish orange s	sand	dy gravelly CLAY. Grave	el is fine a	ngular to	<u>-</u> 0	$\bar{\Delta}$	
- -	2.00 2.0		5			(0	0.60)			very gravelly SAND. G stone.	ravel is a	ngular to	a .		
-						- (0	2.60	Dark greyish b FORMATION]	olue	MUDSTONE. [WHI	TBY MU	DSTONE	0		
-3 -3						- (-	3.00	END OF BOREHO	DLE						
-4						Ē									
						ŧ									
-						ţ									
						ŧ									
-5						F									
-						Ē									
						ŧ									
-						-									
-6 - -						F									
						ŧ									
						Ė									
- -7						-									
						Ē									
						Ė									
-						ŧ									
GR	VDNUC	VATF	ER					REMAR	RK!	S / INSTALLATIONS	3	DRILLI	∟ NG		
Date		Depth of	Depth of	Depth to	Depth struck	Depth after	Depth sealed	Drilling from ground leve		3 0m depth using rotary auger n		Plant: RC4			
	10/19	hole	casing		2.0	20 mins		_				Crew: M Hu	ughes O.Al	bot	
												Type and	Diamete	er De	epth m
												Continuous Auger 150	s Flight		3.00
								LOGGED B	Y	R.White		Auger 150			5.00

Technica	al advisers o	n enviror	mental is		phone: 018 simile: 018										
Proje	ct							Client					Date Co	ompl	leted
	Earl	s Bar	ton Q	uarry				Bree	edor	n Southern Limited			28/10	)/20	)19
Proje	ct No.						Ground	Level (mAOD)	Co	o-ordinates ()			Boreho	le No	0.
	BRE	E/EA/	CJC/2	989/01						E 484 450. N 26	62 026	6.		18	
Cont	ractor							Location	'				Sheet		
	Hug	hes E	Explor	ation &	Enviro	nme	ntal Li	td. Earl	s Ba	arton, Northamptonshire	9		1	of 1	1
Φ	SAM	PLES	8 & TE	STS					;	STRATA				١٢	ent/
Scale	Dept	h	Type No	Test Result	Reduc Leve	<sup>∌α</sup>   (T	epth hick- ess)			DESCRIPTION			Legend	Water	Instrument/ Backfill
-					-		0 15			ndy CLAY with frequent root	lets. [T	OPSOIL]	× × ×		
-1						(1	.35)	Soft brown silty C					* * * * * * * * * * * * * * * * * * *	<u> </u>	
- - - -2	1.50-4.2	20	В			(0	.70) 2.20	Brown very claye angular to sub-rou	y ver unde	y gravelly SAND. Gravel is d flint, sandstone and quart	fine to	medium		<u>*</u>	
-					-	+	2.40	Grey sandy CLAY							
-3						- (1	.80)	angular to sub-rou	unde	ravelly SAND. Gravel is diffint, sandstone and quart	<u>7</u> .	medium			
-4						F	4.20								
-						ļ	4.50	Dark blue MUDS	TONE	E. [WHITBY MUDSTONE FO	ORMAT	TION]			
-						Ē		END OF BOREH	OLE						
-5 -5 -						-									
- -6 -															
-7 -7 - - -															
	21.12.22	A / A ==						B=1/-	D	2 / INIOTAL   ATIONS		DD::::	L L		
GRO	/DNDC	VATE Depth	=R Depth	Depth	Depth	Depth	Depth			S / INSTALLATIONS	hod	DRILLI			
Date	10/19	of hole	of casing	to	struck	after 20 mins	sealed		vei to	4 50m depth using rotary auger met	nou.	Plant: RC4		bot	
20/	10/18				1.5							Type and	Diamete	r Do	nth m
								LOGGED B	gγ ∃	R.White		Continuous Auger 150	s Flight	.	4.50
									•						

Technic	al advisers o	n enviror	nmental is		phone: 018 simile: 018										
Proje	ct			7 400			00.	Client					Date C	omp	leted
	Earl	s Bar	ton Q	uarry				Bree	edoı	n Southern Limited	I		28/1	0/20	)19
Proje	ct No.					(	Ground	Level (mAOD)	Co	o-ordinates ()			Boreho	le N	٥.
		E/EA/	CJC/2	2989/01						E 484 473.	N 261 915	5.		19	
Cont	ractor							Location					Sheet		
				ation &	Enviro	onme	ntal L	td. Earl		arton, Northampto	nshire		1	of ·	
<u>e</u>	SAMI	PLES	8 & TE	ESTS					,	STRATA				ē	nent I
Scale	Depth	h	Type No	Test Result	Reduc Leve	tu (T	epth hick- ess)			DESCRIPTION			Legend	Water	Instrument/ Backfill
-					-	+	0 15	Dark brown slight Orangish brown s		ndy CLAY with freque	nt rootlets. [T	OPSOIL]	7. 7.		
						(0	.55)	Orangish brown s	iigiii	ly Salidy CLAT.					
-					-	+	0.70	Orangish brown s	sandi	y slightly gravelly CLA	V Sand is m	odium to			
-1 -1						(0	.80)	coarse. Gravel is	fine	to medium rounded fli	nt and quartz	edium to			
-						ŧ	1.50							$\nabla$	
-	1.50-3.3	80	В			-		Orangish brown sub-rounded flint,	silty san	very gravelly SAND. dstone and quartz.	Gravel is a	ngular to	0	-	
-2 -						F							0		
-						[ (1	.80)								
-						Ė`	,	2.50 - 3.00 Grave	l is c	oarse.					
-															
-3 -						F	3.30								
-						+	3.50	Greyish blue MUE	OST	ONE. [WHITBY MUDS	TONE FORM	MATION]			
- -								END OF BOREH	OLE						
- ,						F									
-4 - -						F									
-						Ė									
-						F									
: -5						Ē									
-						ļ									
- - -						Ė									
-						ļ									
: −6						Ē									
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-7						E									
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<u> </u>										- / IN IO					
GR	VDNDC	VATE Depth		Depth	Depth	Depth	Depth	+		S / INSTALLATIO		DRILLI			
Date		of hole	of casing	to	struck	after 20 mins	sealed		vel to	3 50m depth using rotary au	ger method.	Plant: RC4		bot	
28/	10/19				1.5										
												Type and		r De	epth m
								100055	1	<b></b>		Continuous Auger 150			3.50
						LOGGED B	Υ	R.White							

Technic	cal advisers on er	nvironmenta	issues Tele		327 717891				DONLINGLE LOG	•			
Proje	ect		Fac	simile: 018	27 718507		Client				Date C	omp	leted
	Earls l	Barton	Quarry				Bree	dor	n Southern Limited		28/1	0/20	)19
Proje	ect No.				Grou	nd Le	evel (mAOD)	Со	o-ordinates ()		Boreho	le N	0.
		EA/CJC	/2989/0	1					E 484 558. N 261 993	3.		20	
Cont	tractor			. – .			Location	_			Sheet	,	
				k Enviro	nmental	Ltd.	Earls		arton, Northamptonshire		1	of	
Scale	SAMPL			<u> </u>	Depth	$\top$		_	STRATA			Water	men ≣
တိ	Depth	Type No	Test Result	Reduce Level	(Thick- ness)	•			DESCRIPTION		Legend	×	Instrument/ Backfill
· -					0.1		ark brown slightly oft yellowish brow		ndy CLAY with frequent rootlets. [T	OPSOILI			
-					(0.95)		·						
					(0.93)								
-1					1.1		i-b b		elle cellimbeth de como americallo CAND	Ones sel in			
-	1.30-3.00	В			ŧ	fir	ne to medium and	gulai	silty slightly to very gravelly SAND. r flint, sandstone and quartz.	Gravei is			
-					Ē	1.	30 Becoming ver	y gr	ravelly.		0		
- -2											. · · · · · · ·		
- <b>-</b>					(1.90)						0		
-					-						0		
-					Ē						a .		
-3					3.0		uish arev thinly l	ami	nated MUDSTONE. [WHITBY MU	DSTONE	0		
-					5.2	Ť\F(	ORMĂTIÓN] ND OF BOREHO			/			
-					-	=	ND OF BOREHO	'LE					
					F								
-4 - -					F								
-					Ė								
-					-								
- 5					E								
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-					-								
-	OLINDVA					4	DEMA		O / INIOTAL LATIONS	DD" .	L		
GR	OUNDWA De	ATER epth Dep	th Depth	Depth	Depth Dep	oth			S / INSTALLATIONS 3 20m depth using rotary auger method.	DRILLI			
Date	(	of of of casi	to	struck	after sea		rining norn ground lev	ei (O (	o zom deput doing rotary auger metriod.	Plant: RC4	U		
	TIC TIC	ore casii	y water		mins	$\dashv$				Crew: M H	ughes O.Al	bot	
										Type and	Diamete	r De	epth m
										Continuou	s Flight	+	
							LOGGED BY	Υ	R.White	Auger 150	mm		3.20
			_					_				_	

Technic	cal advisers on	environ	mental is	sues Tele	wickshire, phone: 01	827 717	'891			DONLINGEL LOG				
Proje	ect			Facs	simile: 01	827 718	507	Client				Date Co	mpl	eted
	Earls	s Bar	ton Q	uarry				Bree	dor	Southern Limited		28/10	)/20	19
Proje	ect No.					(	Ground	Level (mAOD)	Со	o-ordinates ()		Borehol	e No	٥.
	BRE	/EA/	CJC/2	2989/01	1					E 484 616. N 261 993	i.	2	21	
Cont	tractor							Location				Sheet		
	Hugh	nes E	Explor	ation 8	Envir	onme	ntal L	td. Earls	Ва	arton, Northamptonshire		1 0	of 1	
Φ	SAMF	PLES	& TE	STS					(	STRATA			ř	ent/
Scale	Depth		Type No	Test Result	Reduc	ied (T	epth hick- ess)			DESCRIPTION		Legend	Water	Instrument/ Backfill
						-	0 15		/ sar	ndy CLAY with frequent rootlets. [T	OPSOIL]	<u> </u>		
						Ė		Firm grey CLAY.						
						ļ								
_ 1						[(1	.45)							
. '						ţ								
						Ė	4.00							
						+	1.60 1.80	Orangish brown sa	ndy	CLAY.				
-2	1.80-2.00	0	В			Ė	1.00	Grey silty gravelly	SAN	ND. Gravel is fine to medium sub-a	ngular to	0		
- 2						F	.90)	sub-rounded flint a 2.00 Becoming ver				. j . ja j .		
	2.30-3.00	o	В			+ (0	1.90)	•		very clayey. Clay is bluish grey in c	olour.	0		
					<u> </u>	2.70					a .			
2					F	3.00	Brown very silty gra							
-3							. 50)	Bluish grey MUDS	TON	NE. [WHITBY MUDSTONE FORMA	TION]			
							3.50)							
-						E		END OF BOREHO	LE					
						ŧ								
-4						E								
						ļ								
· ·						Ė								
						ţ								
-5						F								
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-7						-								
•						F								
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						ŧ								
GR	L OUNDW	/ <u>A</u> TF	-R					REMAR	SKS	S / INSTALLATIONS	DRILLI	NG.		
JIV		Depth	Depth	Depth	Depth	Depth		Drilling from ground leve		3 50m depth using rotary auger method.	Plant: RC4			
Date		of hole	of casing	to	struck	after 20	sealed		5, 10	5 55 soper doing rotally dagor motilod.	Tiani. RU4	U		
		IIUIE	casing	water		mins	+	-			Crew: M H	ughes O.Abb	oot	
											Type and	Diamotor	. D.	nth -
											Continuou		De	יווים:
								LOGGED BY	<b>γ</b> Τ	R.White	Auger 150			3.50
								LOGGED B	1	11. VVIIILG				

Technic	cal advisers on e	environme	ental iss	ues Tele		827 717	891			DOILLIOL	L LOC	,			
Proje	ect			Facs	simile: 01	827 718	507	Client					Date Co	omp	leted
	Earls	Barto	n Qu	uarry						n Southern Limite	d		28/10	)/20	)19
Proje	ect No.					(	Ground	Level (mAOD)	Co	o-ordinates ()		_	Borehol		0.
0		EA/C	JC/2	989/01				Lasation		E 484 739.	N 261 950	). 		22	
Com	tractor Hugh	es Ex	nlora	ation &	Envir	onme	ntal I i	Location td Fari	ls Ba	arton, Northampto	nshire		Sheet 1	of '	1
	SAMP						iiiai E	241		STRATA			•		
Scale	Depth	Ту	/pe	Test Result	Reduc	ea  (T	epth hick- ess)			DESCRIPTION			Legend	Water	Instrument/
_							, ,			ndy CLAY with freque	ent rootlets. [T	OPSOIL]	<u>7/1/v</u> . <u>7/1/v</u> .		
								Soft grey silty CLA	AY.						
						F									
1						[1	.35)								
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						-	1.50	0.6							
	1.70-2.30		в			+	1.70			ery sandy CLAY. Sai idy GRAVEL. Sand			°0 °°0		
2	5 2.55		-			-(0	.60)	angular to sub-ro	unde	d flint and quartz.	.5 554156.		0 1.0		
							2.30						000		
						ŧ ,,	70)	Bluish grey MUD	SION	NE. [WHITBY MUDS	TONE FORM	ATIONJ			
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ЭR	OUNDW							REMA	RKS	S / INSTALLATIO	ONS	DRILLI	NG		
Date		epth D	Depth of	Depth to	Depth struck	Depth after 20	Depth sealed	Drilling from ground le	evel to	3 0m depth using rotary au	ger method.	Plant: RC4	ე		
			asing	water		20 mins						Crew: M Hu	ughes O.Abl	bot	
												Type and	Diamete	r De	epth
										Continuou	s Flight				
								LOGGED E	3Y	R.White	<b>;</b>	Auger 150	πm		3.00
											_				_

Warwickshire, CV9 2LE Technical advisers on environmental issues Telephone: 01827 7189 Facsimile: 01827 71850										DONLINGEL LOG	l			
Proje	ct			Facs	simile: 018	27 718	3507	Client				Date Co	omp	leted
	Earl	ls Bar	ton Q	uarry				Bree	dor	n Southern Limited		28/10	)/20	)19
Proje	ct No.						Ground	Level (mAOD)	Со	o-ordinates ()		Boreho	le N	0.
	BRE	E/EA/	CJC/2	2989/01						E 484 827. N 261 959		:	23	
Cont	ractor							Location	_			Sheet	_	
				ation &	Enviro	nme	ental L	td. Earls		arton, Northamptonshire		1	of	
Scale	SAM	PLES	5 & II	ESTS		T	Depth		;	STRATA			iter	meni
SS	Depti	h	Type No	Test Result	Reduce Level	³a  (⊺	Thick- ness)			DESCRIPTION		Legend	Water	Instrument/
						+	0 15			ndy CLAY with frequent rootlets. [To sandy CLAY. Sand is coarse.	OPSOIL]			
						+ (	).85)	3	,	, -				
						[,								
-1							1.00	Orangish brown sa	andv	/ slightly gravelly CLAY. Gravel is m	edium to	= =		
	1.20-2.9	90	В			Ė	1.20	coarse rounded sa	ands	stone and quartz.	/	0		
						- F		is angular to sub-re	oung	very gravelly SAND. Sand is coarsed ded flint and sandstone.	e. Gravei	a .		
						[1	1.00)					0		
-2						-	2.20						$\nabla$	
•						(0	0.70)			rery sandy GRAVEL. Sand is coarse ded flint and sandstone.	e. Gravel	0000	_	
						-	2.90					0.00		
-3						- (0	0.40) 3.30	Soft grey CLAY. [V	۷HI	TBY MUDSTONE FORMATION]				
							3.30	Greyish blue MUD	STC	ONE. [WHITBY MUDSTONE FORM	ATION]			
						Ė					_			
GR	JUND	NATE Depth	ER Depth	Depth	Depth	Depth	Depth			S / INSTALLATIONS	DRILLI			
Date	10/10	of hole	of casing	to	struck	after 20 mins	sealed		rei to	3 50m depth using rotary auger method.	Plant: RC4 Crew: M H		bot	
28/	10/19				2.2						Type and	Diameta	r	nth ·
											Continuou		יוטנּ	շիու դ
								LOGGED B	Υ	R.White	Auger 150			3.50
			1					1						

Project No.	Technic	al advisers on	environ	nmental is:	sues Tele	phone: 01 simile: 01	827 717	891							
Project No.   SRE/EA/CJC/2989/01   S2-64   Co-ordinates ()   E 483 239. N 262 582.   GWI   Fughes Exploration & Environmental Ltd.   Earls Barton, Northamptonshire   1 of 1	Proje	ct			1 400	sirilic. 01	027 7 10	507	Client				Date Co	ompl	eted
SRE/EA/CJC/2989/01   52.64   E 483 239. N 262 582.   GW		Earls	Bar	ton Q	uarry				Breed	don Southern Li	mited		29/10	)/20	19
Continue   Continue	Proje	ct No.					(	Ground	Level (mAOD)	Co-ordinates ()			Borehol	e No	٥.
SAMPLES & TESTS   STRATA		BRE/	EA/	CJC/2	2989/01				52.64	E 483 2	239. N 262 582	2.	G	W1	
SAMPLES & TESTS    Depth   Type   Test   Reduced   Depth   Depth   Depth   Depth   State   Province   Cont	ractor											Sheet			
Carbon   C						Envir	onme	ntal Li	d. Earls	Barton, Northa	mptonshire		1 (	of ´	
Carbon   C	Φ	SAMP	LES	8 & TE	ESTS					STRATA				эr	ent/
Orangish brown very sandy CLAY.    1.05	Scal	Depth				Leve	ed (T	hick- ess)					Legend	Wate	Instrum Backfill
1.1	-					52	49	0 15			frequent rootlets. [T	OPSOIL]			
51.44 1.20    Simmorangish brown CLAY.   Firm orangish brown CLAY.	-						F		Clangish brown ve	y sandy OLAT.					
Firm orangish brown CLAY.    1,170							[ (1	.05)							
Firm orangish brown CLAY.    1,170	- -1														
49.74 2.90  49.74 2.90  Caragish brown silty gravelly SAND. Gravel is fine to medium angular fint and quartz.  48.64 4.00  48.64 4.00  Caragish brown silty SAND AND GRAVEL. Gravel is fine to medium angular fint and quartz.  (2.20)  46.44 6.20  46.44 6.20  46.14 6.50  END OF BOREHOLE   CROUNDWATER  Date  Depth Caragish Depth Caragish Brown Silty SAND AND GRAVEL. Gravel is fine to page and continuous fill of the						51.	44	1.20	Firm orangish brow	n CLAY.					
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3.50 Becoming very gravelly.  48.64 4.00  Orangish brown silty SAND AND GRAVEL. Gravel is fine to properly and the properly of							Ē.,	10)	angalai iiin ana qa						
GROUNDWATER    Accordance   Common   Co	-						+ (1	.10)	3.50 Becoming very	gravelly.				Ā	
GROUNDWATER    Accordance   Common   Co	-					48	64	4 00					0	<b>¥</b>	
GROUNDWATER  Date  Depth of of of hole casing water water sealed water and solution of the casing 3 3 3 3 3 3 3 0 10/191 29/10/19 29/10/19 29/10/19 29/10/19 30/10/19 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	-4 -	4.00-5.80		В			-	4.00	Orangish brown s	ilty SAND AND	GRAVEL. Gravel	is fine to	0000	<del>-</del>	
GROUNDWATER    Carrier   C	-						ļ		medium angular flir	it and quartz.			0000		
GROUNDWATER  Date Depth of of hole casing water  29/10/19 29/10/19 29/10/19 30/10/19 30/10/19 30/10/19 CROUNDWATER  REMARKS / INSTALLATIONS Plants and level to 6.50m depth using rotary auger method. Slotted approximately 50mm internal diameter pipe with a filter geotextile warp from approximately 50mm internal diameter pipe with a filter geotextile warp from approximately 50mm internal diameter pipe with a filter geotextile warp from approximately 50mm internal diameter pipe with a filter geotextile warp from approximately 50mm internal diameter pipe with a filter geotextile warp from approximately 50mm of sorted by 50m of the control of the casing water with a filter geotextile warp from approximately 50mm of sorted by 50m of the control of the							Ē								
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A6.44   6.20     A6.14   6.50   Bluish grey MUDSTONE. [WHITBY MUDSTONE FORMATION]   Bluish grey MUDSTONE. [WHITBY MUDSTONE FORMATION]   Bluish grey MUDSTONE. [WHITBY MUDSTONE FORMATION]   Bluish grey Mudstone Formation of the structure of the str	-5 -						[(2	2.20)					0000		
A6.44   6.20     A6.14   6.50   Bluish grey MUDSTONE. [WHITBY MUDSTONE FORMATION]   Bluish grey MUDSTONE. [WHITBY MUDSTONE FORMATION]   Bluish grey MUDSTONE. [WHITBY MUDSTONE FORMATION]   Bluish grey Mudstone Formation of the structure of the str	-						Ė						0000		
GROUNDWATER  Date  Depth of hole casing water  29/10/19 29/10/19 30/10/19  3 9 3.63  Depth of hole casing water  A 4 4 5 5 5 5 5 5 6 5 6 5 6 5 6 5 6 5 6 5	-						ŧ						1000		
46.14 6.50  Bluish grey MUDSTONE. [WHITBY MUDSTONE FORMATION]  FIND OF BOREHOLE  REMARKS / INSTALLATIONS  Depth of hole casing water  Date  Depth of casing water  29/10/19 29/10/19 30/10/19 30/10/19  Depth of sealed water  4  4  Depth of local casing water  4  Depth of sealed water  20 mills  A 3 9 3.63  Depth of local casing water  4  Depth of local casing water  4  Depth of local casing water  29/10/19 29/10/19 30/10/19 30/10/19 30/10/19 30/10/19 30/10/19 30/10/19 30/10/19  Depth of local casing water  3 9 3.63  Depth of local casing water w	-6						E						000		
GROUNDWATER  Date  Depth of hole casing water water 20 mins  29/10/19 29/10/19 3 0/10/19  3 9 3.63  Depth of hole casing water water 20 mins  A 4 4 5 5 0 END OF BOREHOLE  REMARKS / INSTALLATIONS  REMARKS / INSTALLATIONS  Depth bealed 20 point water 20 point wat	-					46.	44	6.20	Bluish arev MLIDST	ONE IWHITRY M	ILIDSTONE FORM	ΔΤΙΟΝΊ	0,00		
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Date of hole casing water 20 water 20 solutions and solutions and solutions and solutions and solutions and solutions are sealed 20 water	GR	Depth Depth Depth Depth Depth					Drilling from ground lev	el to 6.50m depth using	g rotary auger method.						
29/10/19 29/10/19 30/10/19 3.63 Borehole collapsed below 5mbgl. Annulus between borehole and slotted section filled with gravel pack. Plain approximately 50mm internal diameter pipe from approximately 2mbgl to approximately ground level fitted with a lockable cyclindrical headworks. Annulus between borehole and plain section filled progressively with bentonite pellets from 2mbgl to ground level.  Crew: M Hughes O.Abbot  Type and Diameter Depth m  Continuous Flight  Auger 150mm 6 50	Date	hale lessing water 20				sealed	Slotted approximately geotextile wrap from a	50mm internal diame	ter pipe with a filter approximately 2mbql.	Tidit. No.	·				
29/10/19 30/10/19 3 9 3.63 Internal diameter pipe from approximately 2mbgl to approximately ground level fitted with a lockable cyclindrical headworks. Annulus between borehole and plain section filled progressively with bentonite pellets from 2mbgl to ground level.  Type and Diameter Depth m Continuous Flight Auger 150mm 6 50	29/	- IIIIIIS					slotted section filled v	<i>i</i> ith gravel pack. Plain	approximately 50mm	Crew: MH	ughes O.Abl	oot			
between boreitote and plain section lined progressively with bentonitie pellets from 2mbgl to ground level.  Continuous Flight August 150mm 6 50	29/	29/10/19 3 9					ground level fitted with	a lockable cyclindrica	al headworks. Annulus	Type and	Diamete	De	pth m		
Auger 150mm   6.50	30/	30/10/19 3.63								essively with dentonite	Continuou	s Flight	T		
LOGGED BY R.White									LOGGED BY	<u> R.</u>	White	Auger 150	mm		6.50

Project Earls Barton Quarry Breedon Southern Limited  Project No. Ground Level (mAOD) Co-ordinates () BRE/EA/CJC/2989/01 51.00 E 483 138. N 262 36.  Contractor Location Hughes Exploration & Environmental Ltd. Earls Barton, Northamptonshire  SAMPLES & TESTS STRATA  Depth Type No Result Result Curvel (Thickness)  50.85 0 15 Dark brown slightly sandy CLAY with frequent rootlets. The property of the		Sheet	ole N GW2	019 lo.		
Project No.  BRE/EA/CJC/2989/01  S1.00  E 483 138. N 262 36.  Contractor  Hughes Exploration & Environmental Ltd.  SAMPLES & TESTS  STRATA  Depth Type No  Test Reduced Level Thick- ness)  Depth Type No  Depth Type No  Depth Type No  Depth Type No  Test Reduced Level Thick- ness)  Depth Type No  Depth Type No  Test Reduced Level Thick- ness)  Depth Type No  Test Reduced Level Thick- ness)  Test Firm grey thinly laminated CLAY.		Boreho C Sheet	ole N	o. 2		
BRE/EA/CJC/2989/01 51.00 E 483 138. N 262 36.  Contractor     Hughes Exploration & Environmental Ltd. Earls Barton, Northamptonshire  SAMPLES & TESTS  STRATA  Depth Type No Test Reduced Level Tinick- ness)  Depth (Thick- ness)  Dark brown slightly sandy CLAY with frequent rootlets. [1] Firm grey thinly laminated CLAY.		Sheet 1	of	1 /tue		
Contractor  Hughes Exploration & Environmental Ltd.  SAMPLES & TESTS  STRATA  Depth Type No Result  Firm grey thinly laminated CLAY.  Location  Earls Barton, Northamptonshire  STRATA  DESCRIPTION  DESCRIPTION  Firm grey thinly laminated CLAY.		Sheet 1	of	1 /tue		
Hughes Exploration & Environmental Ltd.  SAMPLES & TESTS  Depth Type No Test Reduced Level Tinick- ness)  est Firm grey thinly laminated CLAY.	*OPSOIL]	1		ent/		
SAMPLES & TESTS  Depth Type No Result Level Depth (Thickness)  50.85 0.15 Dark brown slightly sandy CLAY with frequent rootlets. The Firm grey thinly laminated CLAY.	OPSOIL]			ent/		
Depth Type No Test Reduced Level Thickness)  Depth Type No Test Result Depth (Thickness)  Depth Street Result Reduced Level Thickness DESCRIPTION  Depth Type No Test Reduced Level Thickness Description  Total Test Reduced Level Thickness Description  Total Type No Test Reduced Thickness Description  Total Type No Test Reduced Thickness Description  Total Type No Test Reduced Thickness Description  Total Type No Test Reduced Thickness Description  Total Type No Test Reduced Thickness Description  Total Type No Test Reduced Thickness Description  Total Type No Test Reduced Thickness Description  Total Type No Test Reduced Thickness Description  Total Type No Test Reduced Thickness Description  Total Type No Test Reduced Thickness Description  Total T	OPSOIL]	Legend	Water	ackfill		
No Result Level ness)  50.85 0.15 Dark brown slightly sandy CLAY with frequent rootlets. [7] Firm grey thinly laminated CLAY.	「OPSOIL]	Legend	Wa	ackf		
Firm grey thinly laminated CLAY.	TOPSOIL]					
1 (1.45)						
4940 160						
4940 160						
Reddish brown very clayey SAND. Sand is coarse.  49.00 (0.40) 2.00 Becoming gravelly. Gravel is fine to medium flints.	m angular	0000		ئىت كۆ		
Orangish brown very silty very sandy GRAVEL. Gravel	is fine to	0 1.01	Ţ			
medium angular flint and quartz.		.000				
		0000				
$\begin{bmatrix} -3 \\ -(2.20) \end{bmatrix}$		0000				
		000	V			
		0000				
		0000				
46.80 4.20		0000				
Dark bluish grey thinly laminated MUDSTONE. MUDSTONE FORMATION]	[WHITBY					
[ (0.80)						
46.00 5.00						
END OF BOREHOLE						
-6						
-7   -   -						
GROUNDWATER REMARKS / INSTALLATIONS	DRILL	İNG	-	1		
Depth Depth Depth Depth Depth Depth Depth Depth Depth Drilling from ground level to 5.0m depth using rotary auger method.  Date of of to struck after sealed Slotted approximately 50mm internal diameter pipe with a filter	Plant: RC4	40				
hole casing water 20 mins should be tween borehole and slotted section filled with gravel pack.  30/10/10	geotextile wrap from approximately 5mbgl to approximately 2mbgl.  Annulus between borehole and slotted section filled with gravel pack. Plain approximately 50mm internal diameter pipe from approximately					
30/10/19 2.26 2mbgl to approximately ground level fitted with a lockable cyclindrical headworks. Annulus between borehole and plain section filled	Type and	l Diamete	er De	epth m		
progressively with bentonite pellets from 2mbgl to ground level.	progressively with bentonite pellets from 2mbgl to ground level.  Continuo					
LOGGED BY R.White	Continuou Auger 150	ımm	- 1	5.00		

Technic	al advisers on e	nvironmental		phone: 018 simile: 018													
Proje	ct		Fac	Simile. UTO	21 1 10001		Client				Date Co	ompl	leted				
	Earls	Barton (	Quarry			Breedon Southern Limited						25/10/201					
<b>'</b>						ınd Le	evel (mAOD) C	Boreho	le No	0.							
BRE/EA/CJC/2989/01						50	.14	ł.	GW								
Cont	ractor				'		Location				Sheet						
	Hugh	es Explo	ration 8	Enviro	nmental	l Ltd.	Earls B	arton, Northampto	onshire		1	of ´	1				
a)	SAMPLES & TESTS							STRATA				ŗ	ent/				
Scale	Depth	Type No	Test Result	Reduce Level	ness)	-			Legend	Water	Instrument/ Backfill						
-				49 9	9- 01			andy CLAY with frequentially laminated CLAY		OPSOIL]	× ×						
-1 -1 1					(2.15)	1.0		sandy. Sand is coars			- X - X - X - X - X - X - X - X - X - X	Ť					
-	2.20-3.50	В		47.8	2.3	Or su	rangish brown silty v ıb-angular flint. 60 Wet and becomi	very gravelly SAND. C	Gravel is fine to	o medium	× × × 1	Ī					
-3 - - - -					(1.50)						· · · · · · · · · · · · · · · · · · ·						
-				46.3	3.8		oft grey CLAY. [WH	TBY MUDSTONE FO	RMATION]		0						
-4 - - - - - -					(1.20)												
-5				45.1	4 5.0 -		ND OF BOREHOLE										
-6																	
-7 - - - - - - - -																	
GR	SUNDW	ATER					REMARK	S / INSTALLATIO	ONS	DRILLI	NG						
Date of of to str hole casing water		struck		aled SI ge Ai PI 1r	lotted approximately 50 eotextile wrap from appr nnulus between borehole lain approximately 50mm mbgl to approximately gr	to 5.0m depth using rotar mm internal diameter pip oximately 4.6mbgl to appre and slotted section filled v internal diameter pipe fro ound level fitted with a lock	be with a filter pximately 1mbgl. with gravel pack. m approximately kable cyclindrical										
			1.68					ween borehole and plai e pellets from 1mbgl to grou			and Diameter Depth						
30/10/19 1.68							LOGGED BY	R.White	<b>;</b>	Continuou Auger 150			5.00				



Technic	al advisers on	environ	mental is		ephone: 0° simile: 01														
Proje	ct							Client					Date C	omp	leted				
	Earls	Bar	ton Q	uarry				Breedon Southern Limited						30/10/201					
Proje	ct No.					(	Ground	Level (mAOD) Co-ordinates ()						Borehole No GW4					
BRE/EA/CJC/2989/01								51.96	51.96 E 484 497. N 262 535.										
Contractor								Location					Sheet						
				ation 8	Envir	onme	ntal L	td. Earls		arton, Northamptor	nshire		1	of '					
<u>o</u>	SAMP	LES	8 TE	ESTS						STRATA				Water	Instrument/ Backfill				
Scale	Depth		Type No	Test Result	Reduc Leve	T) Des	epth hick- ess)		DESCRIPTION										
ŀ					51	81	0 15	Dark brown slightly Brown slightly sand		ndy CLAY with freque	nt rootlets. [T	OPSOIL]	71/2 7/1/2						
•						(0	.55)	Drown Silginiy Sand	uy C	LAT.			<u> </u>						
ŀ	0.70-2.60		В		51	.26	0.70	Orangish brown s	silty	gravelly SAND. Grav	val is fina to	modium							
-1	0.70-2.00	'	В			E		sub-angular flints.	only	gravery SAND. Grav	el is lille to	medium							
Ė						Ė													
						-							a .						
Ė						(1	.90)						. •						
- -2						F							a .		, o, o				
•						Ē							0						
					49	.36	2.60												
	2.60-2.80		В		49	.16	2.80	Yellowish brown voto medium sub-ang	ery	clayey SAND AND G	RAVEL. Grav	vel is fine							
- -3	2.80-4.00 B						ľ	Yellowish brown very clayey gravelly SAND. Gravel is fine to											
<b>[</b>						£.,		medium sub-angul	lar f	lints.									
Ė						[1	.20)						: · : · : :	Ţ					
						-	4.00												
-4	4.00-4.20	,	В			.96 <sup>-</sup> .76 <sup>-</sup>	4.00 4.20	Orangish brown	Orangish brown silty very sandy GRAVEL. Gravel is fine to										
Ė						-		medium angular to	/	°0 0°0									
ļ .					4/	.66/t	4.30	Yellowish brown ve		orown sandy CLAY.		/							
ŀ						Ē		,		,			===						
-5 -						-													
						- (2	.20)	5.30 Becoming firm	n.										
ŀ						F ,_	,												
						E													
-6 :						E									5-4 B-				
ļ					45	.46	6.50												
•						-		Yellowish brown ve	ery	clayey SAND.									
- <sub>7</sub>					44	.96 - .96	.50) 7.00												
[						-		END OF BOREHO	LE										
ŧ						Ė													
ŧ						E													
-																			
GR	MDNDC								RK:	S / INSTALLATIO	NS	DRILLI	NG						
Date	D	of of to save save save save save save save save			Depth struck	Depth	Depth sealed	Slotted approximately	illing from ground level to 7.0m depth using rotary auger method. Plant: RC otted approximately 50mm internal diameter pipe with a filter										
30/	10/19				35				20 mins		geotextile wrap from approximately 6mbgl to approximately 2mbgl.					ughes O.Ab	bot		
30/	10/19	headworks. Annulus progressively with ber				between borehole and plain section filled  Type and thorite pellets from 2mbgl to ground level.				Diamete	r De	epth m							
							Continuo Auger 15							7.00					
				LOGGED BY R.White															

Technic	cal advisers of	on enviror	nmental is	sues Tele		327 717	891			DOI (EI IOI		•								
Proje	ect			Facs	simile: 018	327 718	507	Client					Date Co	omp	leted					
		ls Bar	ton Q	uarry				Breedon Southern Limited							019					
Proje	ect No.						Ground	Level (mAOD) Co-ordinates ()						le N	0.					
BRE/EA/CJC/2989/01								48.51 E 484 628. N 262 102.						GW5						
Cont	tractor							Location					Sheet 1 of 1							
Hughes Exploration & Environme SAMPLES & TESTS								td. Earls		arton, Northampto	nshire		1	of						
elle	SAM	PLES	3 & TI	ESTS			41.		_	STRATA				ē	nent II					
Scale	Dept	h	Type No	Test Result	Reduc Leve	ea (T	epth hick- ess)			DESCRIPTION			Legend	Water	Instrument/ Backfill					
E					48	36	0 15	Dark brown slightly Firm orangish brow		ndy CLAY with freque	ent rootlets. [T	OPSOIL]	<u> </u>							
						F		Timi orangish brov	•	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,										
-						(0	.95)													
-1					47.	41	1.10													
ļ	1.10-1.4	10	В		47.	11	1.40	Orangish brown ve medium.	ery s	silty slightly gravelly	SAND. Sand	is fine to		_						
- - - -	1.40-3.0	00	В			-		Brown silty grave		SAND. Sand is coa o-angular flint and sa		s fine to		Ā						
-2						F														
-						(1	.60)	2.30 - 3.00 Gravel	hec	oming coarse				$\nabla$						
-						ļ		2.00 0.00 Glaver	500	oming coarse.				_						
-					45.	51	3.00													
-3 -					40.	-	3.00	Firm bluish grey Cl	LAY	. [WHITBY MUDSTO	NE FORMAT	ION]								
-						+,,	00)													
						(1	.00)													
- -4					44.	51	4.00													
-						+		END OF BOREHO	LΕ											
-						ļ														
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-5						Ė														
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-						F														
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-6						F														
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CD	 OUND\	// A T I						DEMAG	- V	S / INSTALLATIO	MC	DRILLI	NG							
511		Depth	Depth		Depth	Depth	Depth	Drilling from ground le	evel t	o 4.0m depth using rotan	auger method.	Plant: RC4								
Date	10/19	of of to struck after sealed hole casing water after sealed mins sealed geote					sealed	Slotted approximately geotextile wrap from Annulus between bore	Slotted approximately 50mm internal diameter pipe with a filter geotextile wrap from approximately 4mbgl to approximately 1mbgl. Annulus between borehole and slotted section filled with gravel pack. Plain approximately 50mm internal diameter pipe from approximately											
	10/19			15	2.4			1mbgl to approximately ground level fitted with a lockable cyclindrical					Diameter Depth							
				progressively with bentonite pellets from imagine ground level.				Continuou		.   0	-pui III									
								LOGGED B	Υ	R.White		Auger 150	mm		4.00					

Technic	al advisers o	n environ	mental is	sues Tele		827 717	891			DOINEITOE		•							
Proje	ct			Facs	simile: 01	827 7185	507	Client					Date Co	mpl	eted				
	Earl	s Bar	ton Q	uarry				Breedon Southern Limited						)/20	19				
Proje	ct No.					(	Ground	_evel (mAOD) Co-ordinates ()						e No	٥.				
								47.56	3.		<b>N</b> 6								
Cont	ractor			4: 0			4-114	Location	ъ.	antana Nianthannanta			Sheet						
				ation &	Envir	onme	ntai Lt	d. Earis		arton, Northampto	nsnire		1 of 1						
Scale	SAIVI			ESTS		, D	epth		STRATA					Water	ımen Fill				
S	Depti	n	Type No	Test Result	Reduc Leve	el (T	hick- ess)	D 11		DESCRIPTION		000011	Legend	W	Instrument/ Backfill				
-					47	41-	0 15			ndy CLAY with freque wn slightly sandy CLA		OPSOIL							
- - - - - - 1							.25)							<u>_</u>					
- -					46.	16	1.40	Orangish brown ve	ry c	layey SAND. Sand is	fine to mediu	m. ,		Ţ					
-	1.50-2.4	.0	В		46	06/1	1.50			ilty sandy GRAVEL.		ılar flint.	0000						
-2						_(0	.90)						000						
-					45.	16	2.40	Firm bluich arou Cl		TALLITEN MILIPETO	NIC CODMAT	IONII	0000						
						(0	.60)	Firm bluish grey Ci	_A Y	. [WHITBY MUDSTC	INE FURIMAT	IONJ							
- - -3					44.	- F	3.00												
						Ė		END OF BOREHO	LE										
- - - -4 - - -						-													
5						-													
-6 - - - - - -						-													
-7 -7   						-													
								<b></b>		. /									
GR	/DNUC	VATE Depth	ER Depth	Depth	Depth	Depth	Depth			S / INSTALLATIO		DRILLI							
Date	10/19	of of to struck after 20 mins				sealed	Slotted approximately 50mm internal diameter pipe with a filter geotextile wrap from approximately 3mbgl to approximately 1mbgl.						240 Hughes O.Abbot						
29/	10/19			1.50 0.70	1.50			1mbgl to approximately ground level fitted with a lockable cyclindrical headworks. Annulus between borehole and plain section filled Type											
30/	10/19			0.70				progressively with bento	onite	pellets from 1mbgl to groun	ia level.	Continuous	s Flight		•				
						LOGGED BY	<b>Y</b>	R.White		Auger 150	mm		3.00						

