			DIVISIO	N		INS	TALLA			griation ve		SHEET 1	
DRI	LLING	LOG		h Atlantic					District			OF 2 SH	IEETS
1. PRO	JECT					9.	SIZE A	ND TY	PE OF BIT	See Rem	narks		
S	St. Johns C	County F	easibility			10.			E SYSTEM/		RIZONTAL	VERTICAL	
0 000			,						ane, FLE (/	NAD83		
	NING DESIG B-SJN15-			LOCATION COOF X = 600,629		11.	MAN	JFACT	JRER'S DES	SIGNATION OF] AUTO HAMMI] MANUAL HAN	
		-	I	,	NTRACTOR FILE NO.	1				DISTU	RBED	UNDISTURBE	
	Corps of Er	<u> </u>	- CESAJ	(6738-15-5453	12.	тоти	L SAM	PLES	3		0	
4. NAN	IE OF DRILL	LER				13.	тоти	L NUM	BER CORE	BOXES ()			
5. DIRI		BORING		DEG. FROM	BEARING	14.	ELEV	ATION	GROUND W	VATER			
\bowtie	VERTICAL INCLINED			VERTICAL		15.	DATE	BORIN	IG	i i	ARTED 04-08-15	COMPLETE 04-08-1	
6. THIC	CKNESS OF	OVERBL	IRDEN	N/A		16.	ELEV	ATION	тор ог во	oring -54.	6 Ft.		
7. DEP	TH DRILLEI	D INTO R		N/A		17.	тоти	L REC	OVERY FOR	BORING	96 %		
	AL DEPTH			.0 Ft.		18.	SIGN	ATURE	AND TITLE	OF INSPECTO	R		
ELEV.	DEPTH	LEGEND	CL	ASSIFICATION O	F MATERIALS	R		SAMPLE Coba		F	REMARKS	BLOWS/ 1 FT.	N-VALUE
E4.0		\dagger				+	+	+					_
-54.6	0.0 L		SAND, po	orly-graded, mo	ostly fine to	_	-		-				
	Ł		medium-g	rained sand-siz					1				
	F				2.5Y 8/1 white (SP)								
	F												
	-	••••							-56.6				
	F							_					
	-												
	F												
				0 Ft., mostly fir d quartz, 2.5Y 6					-58.6				
	F		50110-51200	a quanz, 2.01 t	of i gray	F		2	-30.0				
	E		At EL _50	2 Et little sand	l to gravel-sized								
-59.9	5.3		shell	2 FL, IILLE Sand	i to gravei-sizeu								
	-			orly-graded wit									
	-				uartz, little sand to t, weak reaction			<u> </u>	-60.6				
	E .	1 .11.11.	with HCI, '	10Y 5/1 greenis	sh gray (SP-SM)		- '	3					
	-		At El60.	6 Ft., trace she	11								
	-												
	F	 .:											
-62.9	8.3												
	t –				grained sand-sized nd to gravel-sized				1				
	F	┨╻┥╽╴	shell, wea	k reaction with	HCl, 10Y 4/1 dark								
	ŀ	│ ┼┆┼┆ │	greenish g	gray (SM)					1				
-64.9	- _ 10.3			04 7 4 5 5 -					1				
-0-1.3	- 10.3		From El seam	64.7 to -64.9 Fi	t., very silty sand	/							
	F	··· `	SAND, po	orly-graded, mo	ostly fine-grained	-			1				
	E				silt, no reaction with ms, 2.5Y 6/2 light	n			1				
	ŀ			gray (SP)					1				
	F	$ \cdots $							1				
-67.3	12.7			annia II. aanaa	fine grained								
	F			ganic-H, some d quartz, no rea	fine-grained action with HCI,				1				
	F		N 5/ gray						1				
	È.												
-69.1	14.5								1				
	-		SAND, po	orly-graded, mo	ostly fine-grained								
									1		Continued		

DR	LLING	LO	G (Cont. Sheet)	INSTALLA		D ¹					SHEET 2	
				Jackso					!	<u>ا ، </u>	OF 2 S	IEETS
PROJEC	∶T ohns Cour	aty Eo	asibility	COORDINA State F					HORIZONTAL NAD83	VE	ERTICAL NAVD88	
								,	i NADOS	!	NAVDOO	
	500,629			-54.6 F				3				
	DEPTH	1	CLASSIFICATION OF MATERIA	•	RÉC.	OX OR AMPLE	RQD OR UD		REMA	RKS	1 FT.	-VALUE
-71.6 -72.9 -73.7 -74.6				LS Ction with /2 light action ly fine to few silt, d HCl, / d HCl, vdian for in TORY CATION *		BOX OR SAMPLE	ROD OR UD	-74.6 Abbrevi		RKS	BLOWS	N-VALUE
			*Lab visual classification based on g curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell	gradation								

			DIVISIO	N		INS.	TALLAT		ig Designa			IEET 1		٦
DRI	LLING	LOG	Sout	h Atlantic		J	acksor	nville E	District		OF	2 SH I	EETS	
1. PRO	JECT					9. ;	SIZE AI	ID TYP	E OF BIT	See Remarks				
5	St. Johns C	County F	easibility			10.			SYSTEM/DAT			RTICAL		
									ne, FLE (U.S.			NAVD88		
	NING DESIG			LOCATION COOR X = 601 642	Y = 2,062,879	11.	MANU	FACTU	RER'S DESIGN	ATION OF DRILL		HAMMEI		
		-	I	,	ITRACTOR FILE NO.					DISTURBED		TURBED		
(Corps of Er	ngineers	- CESAJ	e	6738-15-5453	12.	ΤΟΤΑΙ	. SAMP	LES	4	0			
4. NAM	IE OF DRILI	LER				13.	ΤΟΤΑΙ		BER CORE BOX	ES 0				
				-		14.	ELEVA		GROUND WATE	R				
\square	ECTION OF VERTICAL INCLINED	BORING		DEG. FROM VERTICAL	BEARING	15.	DATE	BORIN	G	STARTED 04-08-1	i	MPLETE 04-08-1		
6. THI	CKNESS OF	OVERB	URDEN	N/A	1	16.	ELEVA				<u> </u>		-	
7				N/A		17.	ΤΟΤΑΙ	RECO	VERY FOR BOR	RING 91 %				
				N/A		18.	SIGNA	TURE	AND TITLE OF	INSPECTOR				
8. ТОТ	AL DEPTH	OF BORI	NG 20	.0 Ft.			,							
ELEV.	DEPTH	LEGEND	CL	ASSIFICATION O	F MATERIALS	R	%C:			REMARKS	5	BLOWS/ 1 FT.	N-VALUE	
F4 -	0.0							T						1
-51.7	 L	<u></u>	SAND, po	orly-graded. mc	ostly fine-grained		\vdash	+	1					-0
	╞		sand-size	d quartz, few fin	e-grained									F
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	-		-At FL -54	.7 Ft., mostly fin	e to	⊢	2	-	-54.7					+
	-	· · · · ·	medium-g		ed quartz, trace		<u> </u>	-						F
	-	· · · · ·	shell											L
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	Ł			oorly-graded with ed sand-sized q			4	-						F
	ŀ		medium-o	rained sand-siz	ed shell, few silt,									F
	F	.: !	weak read (SP-SM)	ction with HCI, 2	5Y 5/1 gray									F
-60.5	8.8	\cdot	At El59.	.0 Ft., 10Y 5/1 g	reenish gray									È
	F		-From El	-59.9 to -60.5 Ft	., sandy shelly clay	′ /l								F
	F		seam CLAY, lea	an, little medium	-grained sand-size	d								F
	È.		limestone	, little fine-grain	ed sand-sized									Ļ1
	Ł				and-sized shell, G 4/1 dark greenis	h								Ę
	ŀ		gray (CL)											F
-63.0	11.3													F
	t –			ayey, mostly fine d quartz, little cl										ţ.
	F		fine-graine	ed sand-sized s	hell, weak reaction									F
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Abbreviations: 1. USACE Jacksonville is the custodian for these original files. Abbreviations: 2. Soils are field visually classified in accordance with the Unified Soils Classification System. Abbreviations: 3. Laboratory Testing Results SAMPLE LABORATORY ID DEPTH CLASSIFICATION 1 1.0/1.3 SP* 2 3.0/3.3 SP* 3 5.0/5.3 SP* 4 7.0/7.3 SP-SM* *Lab visual classification based on gradation curve Percent Visual Shell 1 Percent Visual Shell Percent Visual Shell 2 Percent Visual Shell Percent Visual Shell 3 Percent Visual Shell Percent Visual Shell 4 Percent Visual Shell Percent Visual Shell			1.00	Cont Shoot)	INSTALLA	TION			<u>g 2 00.g</u>			SHEET	2	٦
St. Johns County Feasibility State Plane, FLE (U.S. FL) NADB3 NAVD88 LOCATION COORDINATES ELEVATION TOP OF BOING -51.7 FL		LLING	LUC	g (Cont. Sneet)	Jackso	nville	Distr	ict				OF 2	SHEET	5
LICATION CONSIMUTES X = 001,642 Y = 2,062,879 -51.7 FL ELEV. DEPTH B CLASSIFICATION OF MATERIALS NCC BS NCC BS NCC BL -50.8 18.1 CLASSIFICATION OF MATERIALS NCC SS NC SS NCC <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>HORIZONTAL</td><td>1</td><td></td><td></td><td></td></th<>										HORIZONTAL	1			
X = 601.642 Y = 2.062.879 -51.7 FL ELEV. DEPTH 9 CLASSIFICATION OF MATERIALS něč. 52 700 REMARKS 51.7 FL -09.8 18.1 20 -01.000 8 60.000 10.000 </td <td></td> <td></td> <td></td> <td></td> <td>State F</td> <td>Plane,</td> <td>FLE</td> <td>(U.S.</td> <td>. Ft.)</td> <td>NAD83</td> <td>!</td> <td>NAVD88</td> <td>}</td> <td></td>					State F	Plane,	FLE	(U.S.	. Ft.)	NAD83	!	NAVD88	}	
ELEV. DEPTH 9 CLASSIFICATION OF MATERIALS 8% 5% 900 REMARKS 8% 9 1 -69.8 18.1							OF B	ORIN	G					
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-69.8 18.1 -71.7 20.0 -71.7	ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMARK	S	BLOWS/	N-VALUE	
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				 USACE Jacksonville is the custor these original files. Soils are field visually classified is accordance with the Unified Soils Classification System. Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIC 1 1.0/1.3 SP¹ 2 3.0/3.3 SP¹ 3 5.0/5.3 SP¹ 4 7.0/7.3 SP-S *Lab visual classification based on go curve Additional Laboratory Testing Percent Visual Shell Percent Visual Shell Percent Visual Shell 	n TORY CATION				Abbrevi	ations:				

DRILLING LOG South Atlantic Jacksonville District of 2 sheets I. PROJECT St. Johns County Feasibility 9. SIZE AND TYPE OF BIT See Remarks See Remarks 10. COORDINATE SYSTEM/DATUM HORIZONTAL VERTICAL NAVD88 2. BORING DESIGNATION LOCATION COORDINATES 10. COORDINATE SYSTEM/DATUM HORIZONTAL VERTICAL VB-SJN15-03 X = 599,600 Y = 2,062,664 11. MANUFACTURER'S DESIGNATION OF DRILL AUTO HAMMER 3. DRILLING AGENCY CONTRACTOR FILE NO. CONTRACTOR FILE NO. 12. TOTAL SAMPLES DISTURBED UNDISTURBED (UD) Corps of Engineers - CESAJ 6738-15-5453 12. TOTAL NUMBER CORE BOXES 0 0 3. DRICTION OF BORING DEG. FROM BEARING 13. TOTAL NUMBER CORE BOXES 0 0 5. DIRECTION OF BORING DEG. FROM BEARING 14. ELEVATION GROUND WATER 03-31-15 03-31-15 03-31-15 5. DIRECTION OF OVERBURDEN N/A 16. ELEVATION TOP OF BORING -53.0 Ft. -53.0 Ft. -53.0 Ft. -53.0 Ft. 6. DEPTH DRILLED INTO ROCK N/A 17. TOTAL RECOVERY FOR BORING 100 % -53.0 Ft. -53.0 Ft. -53.0 Ft.				DIVIS	ION		INS	TALL			g Desigi	auon	VD-SJIVIS	SHEET 1	
St. Johns County Feasibility	DRI	LLING	LOG								istrict				IEETS
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VE-SINI5-03 X = 599.600 Y = 2.022.664 Image: Construction of Engineers - CESAJ Image: Construction of Engineers - CESAJ Constru											/ /	/		NAVD	38
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Corps of Engineers - CESAJ 6738-15-5453 12 TOTAL NUMBER CORE BOXES 0 5. DIRECTION OF BORING DES. FROM ERITION DES. FROM ERITION <td< td=""><td></td><td></td><td></td><td></td><td></td><td>, ,</td><td></td><td></td><td></td><td></td><td></td><td>! DI</td><td></td><td></td><td></td></td<>						, ,						! DI			
3. DIRECTION OF BORING DEG. FROM BEARING 14. ELEVATION GROUND WATER Implementation 14. ELEVATION GROUND WATER 03-31-15 COMPLETED Implementation 15. DATE BORING 03-31-15 COMPLETED Implementation 16. ELEVATION GPO PF BORING 03-31-15 03-31-15 Implementation 10. N/A 16. ELEVATION TO PF BORING 0.0 % Implementation 20.0 Ft. 17. TOTAL RECOVERY FOR BORING 100 % Implementation 20.0 Ft. 16. SIGNATURE AND TITLE OF INSPECTOR 100 % Implementation 20.0 Ft. 16. SIGNATURE AND TITLE OF INSPECTOR 100 % Implementation 20.0 Ft. 16. SIGNATURE AND TITLE OF INSPECTOR 16. SIGNATURE AND TITLE OF INSPECTOR Implementation 20.0 Ft. 16. SIGNATURE AND TITLE OF INSPECTOR 16. SIGNATURE AND TITLE OF INSPECTOR Implementation 20.0 Ft. 16. SIGNATURE AND TITLE OF INSPECTOR 16. SIGNATURE AND TITLE OF INSPECTOR Implementation SAND.poorly-graded.mostly fine-grained 17. TOTAL REMEMENT 16. SIGNATURE AND TITLE OF INSPECTOR Implementation SAND.poorly-graded with silf. mostly 1 1 -55.0 Implementation <td></td> <td></td> <td></td> <td>rs - CESA</td> <td>1</td> <td></td> <td>12.</td> <td>тот</td> <td>AL S</td> <td>SAMP</td> <td>LES</td> <td></td> <td></td> <td></td> <td>. (02)</td>				rs - CESA	1		12.	тот	AL S	SAMP	LES				. (02)
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A. DEPTH ORDER IVA 3. TOTAL DEPTH OF BORING 20.0 Ft. ELEV. DEPTH B CLASSIFICATION OF MATERIALS resc. SX -53.0 0.0 -53.0 0.0 -53.0 0.0 -53.0 0.0 -53.0 0.0 -53.0 0.0 -53.0 0.0 -53.0 0.0 -55.0 SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, little fine to medium-grained sand-sized sand-sized sand-sized sand-sized sand-sized quartz, few silt, few fine-grained sand-sized shell, weak reaction with HCl, 2.5Y 5/1 gray (SP-SM) -60.0 At El60.3 Ft., little sand to gravel-sized shell -70.0 -59.0 -70.0 -59.0 -70.1 -61.1 Ft., shelly very clayey sand seam -70.1 -61.9 Ft. clayey sand seam -70.0 -59.0 -70.0 -59.0 -70.1 -61.9 Ft. clayey sand seam -70.0 -70.1 Ft. storg reaction with HCl, very clayey sand seam -70.1 -71.	6. тніс	CKNESS OF	OVER	BURDEN	N/A	•	16.	ELE	VAT	ΙΟΝ Τ	OP OF BOR	ING	-53.0 Ft.	•	
3. TOTAL DEPTH OF BORING 20.0 Ft. Itelev. DEPTH 0 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9				DOOK	N1/A		17.	тот	AL F	RECO	VERY FOR E	BORING	100 %		
ELEV DEPTH g CLASSIFICATION OF MATERIALS EEC. GE ROD REMARKS BL -53.0 0.0 SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, little fine to medium-grained sand-sized shell, trace sitt, weak reaction with HCl, 2.5Y 6/1 gray -56.6 3.6 SAND, poorly-graded with sitt, mostly fine-grained sand-sized quartz, the will, few fine-grained sand-sized quartz, few sitt, few fine-grained sand-sized shell, weak reaction with HCl, 2.5Y 5/1 gray (SP-SM) -56.6 3.6 SAND, poorly-graded with sitt, mostly fine-grained sand-sized shell, trace shell -57.0 -56.6 3.6 -57.0 -59.0 -59.0 -62.0 -67.0	. DEP		JINIO	RUCK	N/A		18.	SIG	NAT	URE A		OF INSPE	CTOR		
-53.0 0.0	в. тот	AL DEPTH C	DF BOR		20.0 Ft.			,							
-55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -57.0 -59.0 -50.0 -5	ELEV.	DEPTH	LEGEND	(CLASSIFICATION O	F MATERIALS	R	ес.	BOX OR SAMPLE	RQD OR UD			REMARKS	BLOWS/ 1 FT.	N-VALUE
-55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -55.0 -57.0 -59.0 -50.0 -5	50.0														
-55.0 -56.6 3.6 -56.6 3.6 -56.6 3.6 -56.6 3.6 -57.0 -59.0 -50.0 -50.0 -50.0 -50.0 -50.0	-53.0			SAND,	poorly-graded, mo	ostly fine to	_	ŀ							
-55.0 -56.6 3.6 -56.6 3.6 -56.6 3.6 -57.0 -59.0 -50.0 -50.		-	····	medium	-grained sand-siz	ed quartz, little fine									
-56.6 3.6 -56.6 3.6 -56.6 3.6 -57.0 -59.0 -59.		–		silt, wea	ak reaction with H	Sized Shell, trace Cl, 2.5Y 6/1 grav									
-56.6 3.6 -56.6 3.6 -57.0 -57.0 -57.0 -57.0 -57.0 -57.0 -57.0 -57.0 -57.0 -57.0 -57.0 -57.0 -57.0 -57.0 -57.0 -59.0 -		-		(SP)											
-56.6 3.6 -57.0 -57.0 -57.0 -57.0 -57.0 -57.0 -57.0 -59.0 -50.0		-									-55.0				
-62.0 9.0 SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, few fine-grained sand-sized quartz, few silt, few with HCl, 2.5Y 5/1 gray (SP-SM) -59.0 -5		-	••••		200 quante, 2.01 o	, i giuy	Γ		1						
-62.0 9.0 SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, few fine-grained sand-sized quartz, few silt, few fine-grained sand-sized quartz, few silt, few with HCl, 2.5Y 5/1 gray (SP-SM) -59.0 -59.		-													
-62.0 9.0 SAND, poorly-graded with silt, mostly fine-grained sand-sized quartz, few silt, few fine-grained sand-sized quartz, few silt, few fine-grained sand-sized quartz, few silt, few with HCl, 2.5Y 5/1 gray (SP-SM) -59.0 -59.		_	$\cdot \cdot \cdot$												
-62.0 9.0	-56.6	- 3.6													
-62.0 9.0		-	 *.				⊢	_	2		-57.0				
-62.0 9.0 -59.0 Ft., trace shell		-	[·][†	fine-gra	ined sand-sized s	hell, weak reaction		-							
-62.0 9.0 At El60.3 Ft., little sand to gravel-sized shell From El60.3 Ft., little sand to gravel-sized shell From El60.9 to -61.1 Ft., shelly very clayey sand seam From El61.1 to -61.7 Ft., strong reaction with HCl, very clayey sand seam with dissolutioned limestone From El61.7 to -61.9 Ft., clayey sand seam From El61.9 to -62.0 Ft., slightly shelly clayey sand seam SAND, poorly-graded with clay, mostly fine-grained sand-sized quartz, few clay, trace shell, strong reaction with HCl.		<u>-</u>		with HC	ו, ∠.סז ס/ו gray (י	37-3IVI)									
-62.0 9.0 -61.7 to -61.9 Ft., trace shell -62.0 9.0 -61.7 to -61.9 Ft., clayey sand seam -62.0 -9.0 -61.1 to -61.7 Ft., strong reaction with HCl, very clayey sand seam with dissolutioned limestone From EL -61.7 to -61.9 Ft., clayey sand seam -61.7 to -61.9 Ft., clayey sand -62.0 -9.0 -61.7 to -61.9 Ft., clayey sand -62.0 -9.0 -61.9 to -62.0 Ft., slightly shelly -62.0 -9.0 -61.9 to -62.0 Ft., slightly shelly -7.0 -61.9 to -62.0 Ft., slightly shell		L													
-62.0 9.0 At El60.3 Ft., little sand to gravel-sized shell From El60.3 Ft., little sand to gravel-sized shell From El60.9 to -61.1 Ft., shelly very clayey sand seam From El61.1 to -61.7 Ft., strong reaction with HCl, very clayey sand seam with dissolutioned limestone From El61.7 to -61.9 Ft., clayey sand seam From El61.9 to -62.0 Ft., slightly shelly clayey sand seam SAND, poorly-graded with clay, mostly fine-grained sand-sized quartz, few clay, trace shell, strong reaction with HCl.		-	ŀ : ₿								-59.0				
-62.0 9.0 shell -62.0 9.0 sand seam -62.0 9.0 since the seam with the seam seam with the seam seam the seam seam the seam seam seam seam seam seam seam sea		-	 :-!!#	∽At El5	9.0 Ft., trace she	I	F		3						
-62.0 9.0 shell -62.0 9.0 sand seam -62.0 9.0 since the seam with the seam seam with the seam seam the seam seam the seam seam seam seam seam seam seam sea		-	 .												
-62.0 9.0 shell -62.0 9.0 sand seam -62.0 9.0 since the seam with the seam seam with the seam seam the seam seam the seam seam seam seam seam seam seam sea		F	·												
-62.0 9.0 From EL -60.9 to -61.1 Ft., shelly very clayey sand seam From EL -61.1 to -61.7 Ft., strong reaction with HCl, very clayey sand seam with dissolutioned limestone From EL -61.7 to -61.9 Ft., clayey sand seam From EL -61.9 to -62.0 Ft., slightly shelly clayey sand seam SAND, poorly-graded with clay, mostly fine-grained sand-sized quartz, few clay, trace shell, strong reaction with HCl,		-	 ::		0.3 Ft., little sand	to gravel-sized									
-62.0 9.0 + From EL -61.1 to -61.7 Ft., strong reaction with HCl, very clayey sand seam with dissolutioned limestone + From EL -61.7 to -61.9 Ft., clayey sand seam + From EL -61.9 to -62.0 Ft., slightly shelly clayey sand seam 			ŀ:\		l60.9 to -61.1 Ft	., shelly verv clave	v I								
-62.0 9.0 • 11 with HCl, very clayey sand seam with dissolutioned limestone From El61.7 to -61.9 Ft., clayey sand seam From El61.9 to -62.0 Ft., slightly shelly clayey sand seam SAND, poorly-graded with clay, mostly fine-grained sand-sized quartz, few clay, trace shell, strong reaction with HCl,		-	 :-]‡ [\ sand se	am										
 dissolutioned limestone From El61.7 to -61.9 Ft., clayey sand seam From El61.9 to -62.0 Ft., slightly shelly clayey sand seam SAND, poorly-graded with clay, mostly fine-grained sand-sized quartz, few clay, trace shell, strong reaction with HCl. 	- <u>62.</u> 0	9.0		Hrom El with HC	i61.1 to -61.7 Ft I. verv clavev san	., strong reaction d seam with									
SAND, poorly-graded with clay, mostly fine-grained sand-sized quartz, few clay, trace shell, strong reaction with HCl,		-	·	dissolut	ioned limestone		/								
From EL61.9 to -62.0 Ft., slightly shelly clayey sand seam SAND, poorly-graded with clay, mostly fine-grained sand-sized quartz, few clay, trace shell, strong reaction with HCl.		-	: <i>[]</i>		I61.7 to -61.9 Ft	., clayey sand									
SAND, poorly-graded with clay, mostly 		 -		From El	l61.9 to -62.0 Ft	., slightly shelly									
fine-grained sand-sized quartz, few clay, trace shell, strong reaction with HCI.		L	1.	clayey s	and seam										
trace shell, strong reaction with HCI.			: <i>[]</i>												
L IUY //1 light greenish gray (SP-SC)		È	. 8	trace sh	ell, strong reactio	n with HCI,									
		<u>-</u>	: 1	TUY 7/1	light greenish gra	iy (SP-SC)									
		F													
		-													
		F	: 1												
		F													
		-	· //												
			: <i>[</i>]												
		F	. <i> [</i>]												

URI	LLING	LOC	6 (Cont. Sheet)	INSTALLA							SHEET		
				Jackso					1	-		SHEET	3
PROJEC				COORDINA					HORIZONTAL	1	RTICAL		
	ohns Coun			State F					NAD83	į	NAVD88	3	_
				ELEVATIO		OFB	ORIN	G					
X = 5	599,600	T 1	,062,664	-53.0 F	t.								-
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMARKS	;	BLOWS/	N-VALUE	
-73.0	20.0	. · 💋						-73.0					-
			NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified if accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIC 1 2.0/2.3 SP-3 2 4.0/4.3 SP-S 3 6.0/6.3 SP-S *Lab visual classification based on g curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell	n TORY CATION M* M*				Abbrevia	ations:				

			DIVIS	SION				INS	TAL			g Desig	παιιυί		GIVIO		HEET 1		٦
DRI	LLING	LOG			tlantic							istrict				_	F 2 SH	EETS	5
1. PRO	JECT							9.	SIZE	AND	ТҮРІ	E OF BIT	See	e Remark	s				
S	St. Johns C	ounty	Feasibilit	ty				10.	co	ORDI	NATE	SYSTEM/	DATUM	HORIZ	ONTAL	VE	RTICAL		
												ne, FLE (l			D83		NAVD8		
			I	1				11.	MA	NUFA	CTU	RER'S DES	IGNATIC	ON OF DRII	╙╞) HAMME JAL HAM		
	B-SJN15-	-			<u> </u>		Y = 2,063,569 RACTOR FILE NO.						!	DISTURBE					
	Corps of En		s - CESA	AJ			38-15-5453	12.	то	TAL S	SAMPI	LES		3	_	0		()	
4. NAN	IE OF DRILL	.ER						13.	то		UMB	ER CORE E	BOXES	0					
								14.	EL	ΕνΔΤ			ATER						
	ECTION OF	BORING	3		EG. FROM		BEARING	<u> </u>						START	ED	; co	MPLETE	D	-
	INCLINED							15.	DA	TE BO	ORING	5		03-	31-15		03-31-1	5	
6. тню	CKNESS OF	OVERE	URDEN	N/	Ά			16.	EL	EVAT	ΙΟΝ Τ	OP OF BO	RING	-52.8 Ft	t.				
			ROCK	N/A				17.	то	TAL F	RECO	ERY FOR	BORING	94 %	6				٦
								18.	SIC	NAT	URE A	ND TITLE	OF INSF	PECTOR					
8. ТОТ	AL DEPTH (OF BOR	ING	20.0 F	⁻ t.					,									
ELEV.	DEPTH	LEGEND		CLASS	SIFICATIO	ON OF	MATERIALS	F	ŧέc.	BOX OR SAMPLE	RQD OR UD			REM	ARKS		BLOWS/ 1 FT.	N-VALUE	
-52.8	0.0		SAND	poorly	v-araded	mos	tly fine-grained	_											-
	F		sand-si	ized q	uartz, fe	w fine	-grained												F
	<u>-</u>	l ∷ l			hell, trac Y 7/1 lig		weak reaction												F
	_	l:∵:ľ	└At El	53.8 F	t., few fi	ne to	medium-grained					-54.3							ŀ
	-		sand-si	ized sl	hell					_1_									ŀ
	-																		F
	_																		E
-55.9	_3.1		SAND	noorly	v gradod	l with	silt, mostly												-
	-						artz, few			2		-56.3							Ŧ
	-						ell, few silt, weak												E
-57.2	- 4.4						gray (SP-SM) tly fine to	_											F
	_		mediun	n-graii	ned sand	d-size	d quartz, few					-57.8							F
	-	$ \cdots $					ell, trace silt, wea greenish gray	k		3									ŀ
	-		(SP)																F
	-		LAt El{ shell	57.8 F	t., some	e sand	to gravel-sized												F
	_	$ \cdots $	At El	59.1 F	t., little s	sand to	o gravel-sized												E
-59.9	7.1	┟┄┄╽	shell, N	1 5/ gr	ay			_											┢
	-		sand-si	ized q	uartz, litt	tle sar	e-grained nd to gravel-sized												F
	-		shell, w	veak r	eaction v	with H	Cl, N 5/ gray												þ
	-		∖(MH) ∙At El€	60.5 F	t., trace	shell.	no reaction with												ŧ
	Ł		HCI		,	,													ŀ
	F																		F
-62.8	- - 10.0																		F
-02.0	- 10.0						ned sand-sized												F
	F	V/A	quartz,	trace	shell, no greenisl	o react	tion with HCl,												┢
	–	V/A	101 4/	i udik	greenisi	пугау													F
		VA																	þ
	-	\mathbb{V}/\mathbb{A}																	F
	F	V/A																	F
	-																		F
	<u>-</u>																		F
	-																		┢
	F																		F
	F																		E
																			F

DRI	LLING	LOC	G (Cont. Sheet)	Jackso		Dict	ict			SHEET	2 SHEETS
PROJEC			- /					им	HORIZONTAL		JUCEIS
	- ohns Coun	ity Fea	asibility	State					NAD83	NAVD88	
	ON COORDI			ELEVATIO							
X = 5	98,478	Y = 2	,063,569	-52.8	Ft.						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RĚC.	BOX OR SAMPLE	RQD OR UD		REMAR	KS Ja	N-VALUE
			SAND, clayey, mostly fine-grained sand-sized quartz, little clay, trace s strong reaction with HCI, 2.5Y 7/2 li (SC)	shell, ght gray							
-72.8	20.0							-72.8			
			NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABOR/ ID DEPTH CLASSIFI 1 1.5/1.8 SF 2 3.5/3.8 SP-5 3 5.0/5.3 SF *Lab visual classification based on curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell	in ATORY CATION * *				Abbrev	viations:		

			DIVISIO	N		INS	STALL			g Desig	nation			1	٦
DRI	LLING	LOG		h Atlantic						istrict			-	SHEETS	5
1. PRO	JECT					-				E OF BIT	See	e Remarks			
5	St. Johns C	County F	easibility			10.	co	ORDI	NATE	SYSTEM/D		HORIZONTAL	VERTIC	AL	
		-	-					State	e Plar	ne, FLE (L	J.S. Ft.)	NAD83	NA	/D88	
2. BOR	ING DESIG	NATION		LOCATION COOR	DINATES	11.	MA	NUF	CTU	RER'S DESI	GNATIC			MMER	
	/B-SJN15-		i		Y = 2,062,532								MANUAL		
-				1	NTRACTOR FILE NO.	12.	то	TAL S	SAMP	LES				BED (UD)	2
	Corps of Er	<u> </u>	- CESAJ	; (6738-15-5453	-						2	0		_
						13.	TO		NOWR	ER CORE E	OXES	0			
5. DIR	ECTION OF	BORING		DEG. FROM	BEARING	14.	ELE	EVAT	ION G		ATER				
_	VERTICAL			VERTICAL		15.	DA	ГЕ ВС	ORING	•		STARTED	COMPL		
				!		-						03-31-15	03-3	31-15	-
6. THI	CKNESS OF	OVERB	JRDEN	N/A		<u> </u>				OP OF BOP		-53.0 Ft.			_
7. DEP	TH DRILLEI	D INTO R	оск	N/A						VERY FOR					
8. TOT	AL DEPTH		NG 20	.0 Ft.		18.	SIG	NAT	URE A	ND TITLE	OF INSF	PECTOR			
			20	.011.		4	,								-
ELEV.	DEPTH	LEGEND	CL	ASSIFICATION O	F MATERIALS	F	RÉC.	BOX OR SAMPLE	RQD OR UD			REMARKS	BLOWS/	1 FT. N-VALUE	
-53.0	0.0	$\left\{ \dots \right\}$	SAND no	orly-graded, mo	ostly fine to		┝								-
	ļ.		medium-g	rained sand-siz	ed quartz, few fine										ŧ
	F		to mediun	n-grained sand-	sized shell, trace ICI, 2.5Y 6/1 gray					-54.0					F
	-	$ \cdot \cdot \cdot \cdot $	(SP)		101, 2.51 0/1 gray		-	1							-
	Ę		Àt Él54.	5 Ft., mostly fin											F
	-		sand-size	d quartz, 2.5Y 5	b/1 gray										F
	-	$ \cdot \cdot \cdot \cdot $				⊦		2		-55.5					-
	<u>-</u>						ŀ								Ē
-56.4	- 3.4		From El	56.2 to -56.4 Ft	., shelly sand sean	۱									E
	-			orly-graded with											-
	-				uartz, little fine to ed shell, few clay,										F
			strong rea	action with HCI,											Ł
-58.0	5.0			gray (SP-SC) 3 Ft., some fine	e-grained	h									-
	-		sand-size	d quartz, some	sand to										F
-59.0	6.0			ed shell, N 5/ gr											Ł
	-			ayey, mostly find d quartz, some											ŀ
	-		gravel-siz	ed shell, some	clay, strong reactio	n/									F
	F			5GY 4/1 dark gi , little fine-grain	reenish gray (SC)										F
	ŀ			, little fine-grain w fine gravel-siz											\mathbf{F}
	┝		reaction w		dark greenish gray	/									F
	È "		(CH) At El60.	5 Ft., some sar	nd to gravel-sized										ţ
-61.8	8.8		shell, few	fine-grained sa	nd-sized quartz	h									F
	ŀ			61.4 to -61.8 Ft	t., slightly shelly cla	у/									F
	È i		seam CLAY, lea	an, few fine-arai	ned sand-sized	-									ţ
	F	V/A	quartz, tra	ice shell, weak	reaction with HCI,										F
	ŀ		5G 4/2 gra	ayish green (Cl	_)										F
	<u>-</u>	///	At FL -63	9 Ft little fine t	to medium-grained										F
	Ł				/1 greenish gray										F
65.4	- 124														F
-65.1	12.1 -		SAND. cla	ayey, mostly find	e-arained										F
	F		sand-size	d quartz, little cl	lay, trace shell,										\mathbf{F}
	F				10Y 6/1 greenish										F
	Ł		gray (SC) From El) ∙65.5 to -65.6 Ft	clav seam										E
	ŀ				.,,										F
	F														F
	ŀ														ŀ
		//////													

DR		100	G (Cont. Sheet)	INSTALLA				0 0			SHEET		٦
				Jackso					1		OF 2	SHEET	s
PROJEC		њ. Г а							HORIZONTAL				
	ohns Cour			State F					NAD83	_!	NAVD88		-
	598,582			-53.0 F			ORIN	G					
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA		RÉC.	BOX OR SAMPLE	RQD OR UD		REMARK	s	BLOWS/ 1 FT.	N-VALUE	
-72.4	19.4												- 1
-73.0	20.0	(//////			1			-73.0					È
			NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results *Lab visual classification based on genure 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell	in TORY CATION *				Abbrevi	ations:				

				DIVISIO	N		INS	STAL			g Design	ation	VD-SJINTS	SHEET 1	
DRI	LLING	LO	G		th Atlantic						vistrict			OF 2 SI	
1. PRO	JECT						-				E OF BIT	See	Remarks		
S	St. Johns C	Coun	ty Fe	easibility			10.	co	ORDI	NATE	SYSTEM/DA	атим	HORIZONTAL	VERTICAL	
											ne, FLE (U.			NAVD	88
-			ON		LOCATION COO		11.	MA	NUF	ACTU	RER'S DESIG	GNATIO			
	B-SJN15-			ł		Y = 2,063,652	-							MANUAL HAI	
	Corps of Er		eers ·	- CESAJ	1	6738-15-5453	12.	то	TAL	SAMP	LES		2	0	0,00,
	E OF DRILL	<u> </u>		020/10	I		13.	то	TAL	NUMB	ER CORE BO	OXES	0		
											ROUND WA		•		
		BOR	ING		DEG. FROM VERTICAL	BEARING	<u> </u> "".	EL	EVAI		ROUND WA		STARTED		ED
	VERTICAL						15.	DA	TE B	ORING	3		04-11-15	04-11-	
6. THI	CKNESS OF	ove	RBU	RDEN	N/A	1	16.	EL	EVAT		OP OF BOR	ING	-55.7 Ft.		
							17.	то	TAL	RECO	VERY FOR B	ORING	100 %		
7. DEP	TH DRILLE		ro RC	DCK [N/A						AND TITLE O				
8. ТОТ	AL DEPTH	OF B	ORIN	G 20	.0 Ft.				,						
ELEV.	DEPTH	LEGEND		CL	ASSIFICATION	OF MATERIALS		RËC.	BOX OR SAMPLE	RQD OR UD			REMARKS	BLOWS/ 1 FT.	N-VALUE
		\top					\neg								
-55.7	0.0	+.		SAND no	orly-graded, m	ostly fine to	_								
	F	[::	•. n	nedium-g	grained sand-si	zed quartz, few									
	-	ŀ				zed shell, trace silt, , 2.5Y 6/2 light									
	-				gray (SP)	, 2.51 0/2 light									
	F	. [•] .	·	From El	57 5 to 57 8 5	t., intermittent silt					-57.7				
	-	ŀ	.'h s	seams			F		1	1					
	-	⊡				to medium-grained									
	-	ŀŀ	: s	and-size	a snell										
	F	·.·													
	<u>-</u>	[::]				d to gravel-sized									
	È	$ \cdot $. I S	sileli, 2.3	Y 5/1 gray						-60.2				
	-	ŀ	·						2	-					
	-	ŀŀ													
	-														
	-														
	L	·.·	÷L.												
	┝	[::		At El62. sand-size		to coarse-grained									
-63.2	7.5	li i	·.		rganic-H, some	fine_grained									
	F		s	and-size	d quartz, few fi	ine to									
	Ł		l n	nedium-g	grained sand-si vith HCl, N 5/ g	zed shell, weak									
	ŀ		1		with FIG1, IN 5/ g	iay (1111)									
	F														
	È		I ∕-F	rom El	-65.2 to -65.4 F	t., strong reaction									
	F		+ V	vith HCI,	sandy very she	elly silt seam									
	ŀ														
	F	IT													
	È i		Ŧ												
	F		L.		6 Et 11441 - fire -	aroinod cond cite									
	ŀ			νι ⊏ι67. juartz. tra	ace shell, no re	-grained sand-sized action with HCI									
	È			,,											
	F														
	F		T												
	Ļ		*												
	Ł														
	ŀ														
		10.0											(Continued)		

DRILLI	NG LO	G (Cont. Sheet)	INSTALL	ATION sonville	Dietr	ict			SHEET 2 OF 2 S	
PROJECT		-	COORDI					AL	VERTICAL	
St. Johns	County F	easibility		Plane,			I		NAVD88	
OCATION CO			ELEVATI							
X = 599,48	36 Y =	2,063,652	-55.7	Ft.						
ELEV. DEF	LE GEND	CLASSIFICATION O	F MATERIALS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
-70.8 15.7		SAND, silty, mostly fine- quartz, little silt, trace she with HCI, N 7/ light gray	ell, strong reaction							
-75.7 20.0		*					-75.7			
		NOTES: 1. USACE Jacksonville is these original files. 2. Soils are field visually accordance with the Unific Classification System. 3. Laboratory Testing Ref SAMPLE SAMPLE ID DEPTH 1 2.0/2.3 2 4.5/4.8 *Lab visual classification curve 4. Additional Laboratory 1 Percent Visual She 2 Percent Visual She	classified in ed Soils esults LABORATORY CLASSIFICATION SP* SP* based on gradation Testing				Abbreviations:			

r			DIVISI	ON		INS	STAL			g Designat	1011 VD-3JN	10-0	SHEET 1		٦
DRI	LLING	LOG	_	uth Atlantic						istrict			OF 2 SH	EETS	;
1. PRO	JECT					_					See Remarks				1
S	St. Johns C	county l	easibility			10.	CO	ORDI	NATE	SYSTEM/DATU		AL	VERTICAL		
		•						State	e Plar	ne, FLE (U.S.	Ft.) NAD83	3	NAVD8	8	
2. BOR	ING DESIG	NATION		LOCATION CO	ORDINATES	11.	MA	NUF	ACTU	RER'S DESIGN	ATION OF DRILL			R	
	/B-SJN15-	-		,	4 Y = 2,063,760								MANUAL HAN		
-				1	ONTRACTOR FILE NO.	12.	то	TAL S	SAMP	LES	DISTURBED	U	NDISTURBED	(UD)	
	Corps of Er	0	s - CESA	J	6738-15-5453	-					3	!	0		_
4. NAN	IE OF DRILL	LEK				13.	TO	TAL I	NUMB	ER CORE BOX	ES ()				
5. DIR	ECTION OF	BORING)	DEG. FROM	BEARING	- 14.	ELI	EVAT	ION G	ROUND WATE	R				
	VERTICAL INCLINED			VERTICAL		15.	DA	TE B	ORING	3	STARTED 04-11-	15	COMPLETE 04-11-1		1
6. THI	CKNESS OF	OVERB	URDEN	N/A		16.	ELI	EVAT	ION T	OP OF BORING	-52.3 Ft.				
7. DEP	TH DRILLEI		ROCK	N/A		17.	то	TAL I	RECO	VERY FOR BOR	NING 96 %				
						18.	SIG	NAT	URE A	ND TITLE OF I	NSPECTOR				
8. ТОТ	AL DEPTH	OF BOR	ING 2	0.0 Ft.				,							
ELEV.	DEPTH	LEGEND	с	LASSIFICATION	OF MATERIALS		RÉC.	BOX OR Sample	RQD OR UD		REMAR	s	BLOWS/ 1 FT.	N-VALUE	
	0.0														1
-52.3	0.0	$+ \cdots +$	SAND. n	oorly-graded	mostly fine-grained										-0
	F		sand-size	ed quartz, little	fine to										F
	È.	$ \cdots $			sized shell, trace silt, , 2.5Y 6/2 light										È
	ŀ	 ····		i gray (SP)	, 2.01 0/2 liyill										┢
	F	[····]								-54.3					F
	-	.∵.ŀ	∽At El54	4.3 Ft., trace s	hell	ŀ		1		-04.0					
	F	$ \cdots $			e to medium-grained				1						F
	-		sand-size		e to medium-gramed										L
	-														-
										-56.3					Ē
	-	l∵h	-At El56	6.3 Ft., mostly	fine to	F		2		-30.3					
	F		medium-	grained sand-	sized quartz, few				1						F
	-	.: `	medium-	grained sand-	sized shell I greenish gray										-5
	-	• • • •								-57.8					١
	-		-At El57	7.8 Ft., mostly	fine-grained	Γ		3							F
	-		sand-size	ed quartz, few	fine-grained										-
	-		30110-3120												-
	F	[:∴]													F
	L	l⊡ŀ		-59 6 to -60 0	Ft., very shelly sand										Ł
-60.0	- <u>7.7</u>	+	seam												F
	<u> -</u>				vith silt, mostly	_									F
	-	.	fine-grain	ned sand-sized ned sand-sized	l quartz, few silt, few I shell, weak reaction										-
	-		with HCI,	, 10Y 5/1 gree	nish gray (SP-SM)										F
	t														Ę
	ŀ	 . · 	-At El62	2.0 Ft., little fin	e to medium-grained										F .
-62.6	10.3		sand-siz	ed shell	-										-1
	t			organic-H, little ed quartz, few											Ę
	-		medium-	grained sand-	sized shell, weak										\vdash
	F		reaction	with HCI, N 5/	gray (MH)										F
	F														Ł
	ŀ		∽At El64	4.4 Ft., few fine	e-grained sand-sized										F
	t		quartz, tr	ace shell, no r	eaction with HCI										E
	╞														\vdash
	È														Ę
	ŀ														\mathbf{F}
	F														F
	Ł														Ł
															L ₁

DR	ILLING	LOC	G (Cont. Sheet)	INSTALLA Jacks		Dict	Boring			SHEET 2 OF 2 S	
PROJEC			- /					UM	HORIZONTAL	VERTICAL	/ILE [3
St. J	ohns Cour	nty Fe	asibility	State	Plane,	FLE	(U.S.	Ft.)	NAD83	NAVD88	
LOCATI	ON COORD	INATE	S	ELEVATIO	он тор	OF E	ORIN	G			
X = (600,504	Y = 2	,063,760	-52.3	Ft.						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATER	RIALS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMAR	RS SA	N-VALUE
-68.3	16.0		SAND, silty, mostly fine-grained s quartz, little silt, trace shell, stron with HCl, N 7/ light gray (SM)	sand-sized g reaction	_						
-71.5	19.2				_						
-72.3	20.0							-72.3			
			ID DEPTH CLASSI 	ed in RATORY IFICATION SP* SP* SP*				Abbrev	<i>v</i> iations:		

r			DIVISIO	N			STAL			g Desig	mation			OUEET /		٦
DRI	LLING	LOG		Atlantic						istrict				SHEET ' OF 2 S		
1. PRO	JECT		000			_				E OF BIT	Se	e Remarks				-
S	st. Johns C	County I	easibilitv							SYSTEM/I		HORIZONTA	L	VERTICA	L	-
		,	,					State	e Plar	ne, FLE (l	J.S. Ft.) NAD83		NAVE	88	
2. BOR	ING DESIG	NATION		LOCATION C	DORDINATES	11.				, ,		,		ТО НАММ		
	/B-SJN15-			X = 601,5	, ,							[_	NUAL HA		
-					CONTRACTOR FILE NO		. то	TAL	SAMP	LES			i	ISTURB	ED (UD)	'
	Corps of Er		s - CESAJ	i	6738-15-5453	+						1	0			-
-						13.	. то	TAL	NUMB	ER CORE	BOXES	0				_
5. DIR	CTION OF	BORING)	DEG. FROM	BEARING	-14	. ELI	EVAT	ION G	ROUND W	ATER					
	VERTICAL			VERTICAL		15.	. DA	TE B	ORING	•		STARTED				
				<u> </u>	1	+						04-10-15		04-10	-15	-
6. THI	CKNESS OF	OVERE	URDEN	N/A						OP OF BO		-55.1 Ft.				-
7. DEP	TH DRILLEI	D INTO	ROCK	N/A						VERY FOR						
8. ТОТ	AL DEPTH (OF BOR	ING 20	.0 Ft.		7 ^{18.}	. 510	NAT	URE A	ND TITLE	OF INS	PEGIUR				1
ELEV.	DEPTH	EGEND			N OF MATERIALS		RËC.	BOX OR SAMPLE	RQD OR UD			REMARKS	i	BLOWS/ 1 FT.	N-VALUE	1
		┽╧┽						шv)								-
-55.1	0.0															
		l₩			, mostly fine-grained v medium-grained	7										F
	-	[⊡]	sand-size	d shell, trace	e silt, weak reaction					-56.1						F
	-		with HCI,	2.5Y 5/1 gra	iy (SP)	ŀ		1		50.1						t
	_															ŀ
-57.3	-2.2	<u>[:∵:</u>]														F
	-	·			with silt, mostly											F
	-				ed quartz, little fine to -sized shell, few silt,											F
	-		weak read		Cl, 2.5Y 7/1 light gray											-
	-		(SP-SM)													Ē
	-	ŀ.\\														F
	-															-
60.4	- 5.3	I. Hik	From El	60 1 to 60	4 Ft., shelly silty sand											E.
-60.4	_ <u>5.3</u> -	╊┋╋╝	seam	-00.110-00.4	+ FL, Shelly Silly Salu	' /										E
	-		SAND, sil	ty, mostly fir	ne-grained sand-sized	1 T										ŀ
	-				fine-grained k reaction with HCl,											F
	-			reenish gray												È
	_															-
	-															F
	-															F
	_	I HİHİL														E
	-		∽At El63. shell	.6 Ft., little s	and to gravel-sized											-
	F		311011													F
	L	: İ	-At El64	.6 Ft., little fi	ne to medium-grained	l t										E
	-		sand-size		-											-
	F	┨┦┤╿╿														F
	<u>-</u>	╟╟╽		00.4.												F
		I III		-66.1 to -67.4 slightly sand	4 Ft., intermittent											ł
	F	┨┥┤╿╿														F
-67.4	12.3															F
			SAND, po	orly-graded	with silt, mostly fine t -sized quartz, few silt	0										ł
	Ē.	 .			-sized quartz, rew slit	,										F
	E .			reenish gray												t
 -	-															ŀ
-69.3	-14.2	╊	SILT inor	ganic-H, sor	ne fine to											F
	E .				-sized quartz, trace											t
					-											

DRI	LLING	LOC	G (Cont. Sheet)	INSTALLA		Dict	ict	-		SHEET	
PROJECT			· · · · · · · · · · · · · · · · · · ·	Jackso COORDIN				IM		VERTICAL	SHEETS
	ohns Coun	ty Fe	asibility	State					NAD83	NAVD88	3
	ON COORDI			ELEVATIO					•	•	
X = 6	01,528	Y = 2	,063,898	-55.1 F	=t.						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	ALS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMAR	KS ON	T FI.
-72.7	17.6		shell, weak reaction with HCl, N 5/ (MH) At El71.0 Ft., 3" silty sand seam At El71.2 Ft., little fine to medium sand-sized quartz, few medium-gra sand-sized shell SAND, silty, mostly fine-grained sa quartz, little silt, trace shell, strong with HCl, N 7/ light gray (SM)	n-grained ined							
-74.6	19.5	<u>↓</u> †↓†			4						
-75.1	20.0							-75.1			
			NOTES: 1. USACE Jacksonville is the cust these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABOR/ ID DEPTH CLASSIFI 1 1.0/1.3 SF *Lab visual classification based on curve 4. Additional Laboratory Testing 1 Percent Visual Shell	in ATORY CATION							

			DIVISIO	N		INS	TALL			g Designat	1011 VD-33		SHEET	1	٦
DRI	LLING	LOG		th Atlantic						istrict			OF 2		5
1. PRO	JECT					9.	SIZE	AND	ТҮРІ	OF BIT	See Remarks				
S	St. Johns C	County F	easibility			10.				SYSTEM/DATU		NTAL	VERTIC	AL	
										ne, FLE (U.S.			NAV		
	ING DESIG /B-SJN15-			LOCATION COOR		11.	MAN	IUFA	CTU	RER'S DESIGNA	TION OF DRILI	· ·	AUTO HAM MANUAL H		
	LLING AGEI		i	,	Y = 2,064,910 ITRACTOR FILE NO.	+					DISTURBED		NDISTURB		
-	Corps of Er		s - CESAJ		6738-15-5453	12.	тот	AL S	AMPI	.ES	6		0	(,	ĺ
4. NAN	E OF DRIL	LER		•		13.	тот	AL N	UMB	ER CORE BOXE	IS 0				
				•		14.	ELE	νατι	ON G	ROUND WATE	R				
	ECTION OF	BORING	ì	DEG. FROM VERTICAL	BEARING	<u> </u>					STARTE	D		TED	-
	INCLINED					15.	DAT	EBO	RING	•	04-1	0-15	04-1	0-15	
6. THI	CKNESS OF	OVERB	URDEN	N/A		16.	ELE	VATI	ON T	OP OF BORING	-50.3 Ft.				
7 DER				N/A		17.	тот	AL R	ECO	/ERY FOR BOR	ING 92 %				
7. DEP						18.	SIG	NATU	JRE A	ND TITLE OF I	NSPECTOR				
8. ТОТ	AL DEPTH	OF BOR	ING 20.	.0 Ft.			,								
ELEV.	DEPTH	LEGEND	CL	ASSIFICATION O	F MATERIALS	F	RÉC.	BOX OR SAMPLE	RQD OR UD		REMA	RKS	BLOWS/ 1 FT.	N-VALUE	
		\dagger													1
-50.3	0.0	$+ \cdot \cdot +$	SAND no	orly-graded mo	ostly fine-grained		- F	_							-
	F		sand-size	d quartz, few me	edium-grained										F
	È.			d shell, trace sil 2 5Y 6/2 light br	t, weak reaction ownish gray (SP)										F
	Ł														F
	F									-52.3					F
	-							1							F
	-														Ł
	-		-At El53.	.3 Ft., little fine t	o medium-grained										⊢
	-		sand-size		e mealain grainea										F
	-	l:∵:k	-At El -54	.2 Ft., few mediu	ım-grained			_		-54.3					F
	-			d shell, 2.5Y 6/1			-	2							E
	-	••••								-55.3					F
	-			.3 Ft., mostly fin				3							╞
	-	••••	medium-g	grained sand-siz grained sand-siz	ed quartz, little ed shell					56.0					È
	-	l.∴h	-	.3 Ft., little sand		ŀ		4		-56.3					+
	-		shell, 2.51	Y 7/1 light gray	0										F
	-														F
										-57.8					
	F	$ \cdots $.8 Ft., mostly fin d quartz, few fin			⊢	5							F
	ŀ	: . : \	sand-size	d shell	0					-58.8					F
-59.1	8.8	┟╦╁	∽At El58. ∿At El58	.3 Ft., 2.5Y 5/1 g .8 Ft., few mediu	gray um-grained	Ţ		6							Ŧ
	F	<u> </u>	\sand-size	d shell		_/									F
	È		SAND, sil	ty, mostly fine-g	rained sand-sized grained sand-sized										F
	┝	 <u> </u> <u> </u> <u> </u>	shell, wea	ak reaction with I	ĤCI,										F
-61.1	- L 10.8			reenish gray (S											F
-01.1	<u> </u>				n silt, mostly fine to										F
-61.8	11.5		medium-g	grained sand-siz	ed quartz, little fine sized shell, few silt)									Ł
	-	<u> </u>	weak read	ction with HCI, 2		' /[┢
	F	 ‡ <u> </u> ‡ <u> </u>	brownish	gray (SP-SM)	Ū										F
	È i	 ↓ <u>†</u> ↓† 			rained sand-sized grained sand-sized										ŧ
	F	 <u> </u> <u> </u> <u> </u>	shell, wea	ak reaction with I	ĤCI,										┢
	F		10Y 5/1 g	reenish gray (S	M)										F
	È.	 ↓ <u>†</u> ↓ <u>†</u>													F
	Ł	 <u>†</u> <u> </u> † <u> </u>													F
	F														F
															1

DRI	LLING	LO	G (Cont. Sheet)	Jackso		Dict	ict	ī			SHEET 2 OF 2 S	
PROJEC			-					UM	HORIZONTAL			
	ohns Cour	nty Fe	asibility	State F					NAD83	1	AVD88	
LOCATI	ON COORD	INATE	S	ELEVATIO	N TOP	OF E	ORIN	G				
X = 6	601,418	Y = 2	,064,910	-50.3 F	t.							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMA	ARKS	BLOWS/ 1 FT.	N-VALUE
-66.5	16.2		SAND, poorly-graded with silt, most	ly fine to								
	10.0		medium-grained sand-sized quartz, to medium-grained sand-sized shell weak reaction with HCl, 2.5Y 6/2 lig brownish gray (SP-SM)	little fine , few silt,								
-68.6	18.3	<u> • </u>										
-70.3	20.0							-70.3				
			NOTES:					Abbrevia	ations:			
			 USACE Jacksonville is the custo these original files. 	odian for								
			 Soils are field visually classified i accordance with the Unified Soils Classification System. 	in								
			3. Laboratory Testing Results									
			SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIC									
			1 2.0/2.3 SP 2 4.0/4.3 SP 3 5.0/5.3 SP 4 6.0/6.3 SP 5 7.5/7.8 SP 6 8.5/8.8 SP	* * *								
			*Lab visual classification based on g curve	gradation								
			4. Additional Laboratory Testing									
			 Percent Visual Shell Percent Visual Shell Percent Visual Shell Percent Visual Shell Percent Visual Shell Percent Visual Shell Percent Visual Shell 									

			DIVISI	ON		INS	TALL			g Doolgila		SHEET	1	٦
DRI	LLING	LOG	_	uth Atlantic						istrict		OF 2 3		
1. PRO	JECT					9.	SIZE	AND	ТҮР	E OF BIT	See Remarks			1
S	St. Johns C	County	easibility	1		10.	coc	RDI	NATE	SYSTEM/DAT	UM HORIZONTA	L VERTICA	L	
										ne, FLE (U.S.	,	NAVI	D88	
						11.	MAN	NUFA	CTU	RER'S DESIGN	ATION OF DRILL			
	B-SJN15-			X = 600,400	Y = 2,064,778 NTRACTOR FILE NO.	-								
-	Corps of Er		s - CESA.	1	6738-15-5453	12.	тот	AL S	AMP	LES	3		20 (00)	
	E OF DRIL			- 1		13.	тот	ALN	IUMB	ER CORE BOX	-			1
						<u> </u>				ROUND WATE				-
-	ECTION OF	BORING	ì	DEG. FROM VERTICAL	BEARING	<u> </u>	ELE	VAI				COMPLE	TED	-
	INCLINED					15.	DAT	E BC	ORINO	•	04-11-15			
<u>6.</u> тні	CKNESS OF	OVERE	URDEN	N/A	·	16.	ELE	VAT	ION T		1			
						17.				VERY FOR BOI				
7. DEP	TH DRILLEI	D INTO	ROCK	N/A						ND TITLE OF				-
8. ТОТ	AL DEPTH	OF BOR	NG 20	0.0 Ft.			,							
ELEV.	DEPTH	LEGEND	с	LASSIFICATION C	OF MATERIALS	R	ес.	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE	
50.0	0.0													1
-53.6	0.0	$+ \cdots +$	SAND. D	oorly-graded, m	ostly fine to		┠							-
	-		medium-	-grained sand-siz	zed quartz, little									F
	<u>-</u>	$ \cdots $			zed shell, trace silt, 2.5Y 7/1 light gray	┝	-+	_		-54.6			_	Ļ
	L	⊡ :	(SP)		e		┝	1						F
	-													ŀ
	-				to medium-grained eaction with HCl,									F
	-			light brownish g										E
	_	. [.]	-At FL -56	6.6 Ft., mostly fi	ne-grained	F	-	2		-56.6				╋
	-		sand-size	ed quartz, little n				-						F
	-		sand-size							-57.6				Ł
	_		-At El51 shell	7.6 Ft., few fine-	grained sand-sized		-	3						E
	-		0.101											F
	-													-
	_													E
	-		From EI.	-59.3 to -59.4 F	t., shell seam									-
	-													F
	-	l ∴ .	-Erom El	60.5 to -60.7 F	t shell seam									L
	_	l[`	-At El60	0.7 Ft., few fine t	o medium-grained									F
	-		sand-size	ed shell, 10Y 5/1	l greenish gray									F
	-													F
-62.5	- - 8.9													È
52.5			SILT, inc	organic-H, some	fine-grained									\vdash
	F			ed quartz, few fir grained sand-siz										F
	-			with HCl, N 5/ gi										L
	L			. 5	- • /									F
	-													F
	F													F
	È		At El64- sand-sizo		to medium-grained									Ł
	┝		5414-512											\vdash
-66.3	- 12.7													Ē
50.5			SAND, s	silty, mostly fine f	o medium-grained									F
	F	 <u> </u> † <u> </u>		ed quartz, some	silt, little shell, weak reaction									F
	F		with HCI.	, 10Y 5/1 greenis	sh gray (SM)									Ē
	F		From El.	67.4 to -67.7 F	t., very shelly very									F
	F	HiHI	silty sand	d seam 67.7 to -69.0 F	t intermittent									F
	-	I +I+I		57.7 to -03.0 T	., mornintont									Ŀ

DRI	IIING	100	G (Cont. Sheet)	INSTALLA					SHEET 2	
		-00		Jackso	-			1	OF 2 S	HEETS
PROJEC	∶ T ohns Cour	aty Ec.	acibility	COORDINA State F				1	VERTICAL NAVD88	
	ON COORD							, ,		
			, 064,778	-53.6 F			-sant	-		
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA		RÉC.	BOX OR SAMPLE	RQD OR UD	REMA	IRKS SMILL IRKS Ja	N-VALUE
-69.0	15.4		seams of shelly very sandy silt sean	n						
-03.0	13.4		SAND, poorly-graded with silt, most medium-grained sand-sized quartz, fine to medium-grained sand-sized s silt, strong reaction with HCl, 2.5Y 5/2 grayish brown (SP-SM)	some	-					
-73.1	19.5		At El72.9 Ft., little fine-grained sa	nd-sized						
-73.6	20.0		quartz, 2" silty sand seam, 10Y 5/1	greenish				-73.6		
			∖gray NOTES:	/				Abbreviations:		
			 USACE Jacksonville is the custo these original files. Soils are field visually classified i accordance with the Unified Soils Classification System. Laboratory Testing Results SAMPLE SAMPLE LABORA 	'n						
			ID DEPTH CLASSIFIC 1 1.0/1.3 SP ¹ 2 3.0/3.3 SP ¹ 3 4.0/4.3 SP ¹	* *						
			*Lab visual classification based on g curve	gradation						
			 Additional Laboratory Testing Percent Visual Shell Percent Visual Shell Percent Visual Shell 							

			DIVISIO	0.1			TALLA			g Designatio	DU AR-21012	SHEET 1	
DRI	LLING	LOG		uth Atlantic			Jacks			istrict		OF 2 SH	IEETS
PRO	JECT		000			-					ee Remarks	1	
S	t. Johns C	ounty I	Feasibility							SYSTEM/DATUN		VERTICAL	
		- , -	- 1				S	tate	Plar	ne, FLE (U.S. F	t.) NAD83	NAVD	38
BOR	ING DESIG	NATION	1	LOCATION CO	ORDINATES	11.				RER'S DESIGNAT	,	_	
	B-SJN15-			X = 599,36	66 Y = 2,064,750							MANUAL HAN	MER
	LING AGEN			1	CONTRACTOR FILE NO.	12.	тот	AL S		ES	DISTURBED	UNDISTURBED) (UD)
	orps of En		s - CESA.	J	6738-15-5453	<u> </u>					7	0	
NAM	E OF DRILL	ER				13.	тот	AL N	UMB	ER CORE BOXES	0		
DIRE		BORING	•	DEG. FROM	BEARING	14.	ELE\		ION G	ROUND WATER			
١	/ERTICAL NCLINED		-	DEG. FROM VERTICAL		15.	DATI	Е ВС	ORING	;	STARTED 04-11-15	COMPLETE 04-11-1	
тніс	KNESS OF	OVERB	URDEN	N/A	-	16.	ELE\	/AT	ION T	OP OF BORING	-44.0 Ft.		
DEPT	TH DRILLED	і пто	ROCK	N/A		17.				ERY FOR BORI			
тоти	AL DEPTH C	DF BOR	ING 20	0.0 Ft.		- 18.	SIGN ,	ΙΑΤΙ	URE A	ND TITLE OF IN	SPECTOR		
LEV.	DEPTH	LEGEND	c	LASSIFICATION	N OF MATERIALS	R	ی 20. ک	BUA UK SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
-44.0	0.0												
	-	\cdot			mostly fine to sized quartz, few	7	Γ	Τ					1
ļ	-		medium-	-grained sand-	sized shell, trace silt,								
ŀ	-		weak rea		I, 2.5Y 7/1 light gray								
F	-		(SP)										1
Ŀ	-	$ \cdot \cdot \cdot $				L				-46.0			<u> </u>
F	-							1					
ļ	-												1
ŀ	-	$ \cdots $											1
F	-	·											
Ę	-									-48.0			
ŀ	_	l`	At El48 sand-size	5.∪ ⊢t., little m ed shell	edium-grained		⊢	2					1
ļ	-	$ \cdot \cdot \cdot $	0.20										1
ŀ	-												1
ŀ	-	$ \cdot\cdot\cdot $	∽At El49	9.3 Ft., 2.5Y 6	/2 light brownish gray								
ļ	-					F				-50.0			
ŀ	-						⊢	3					
F	-												
t	-												
ŀ	-												
ļ	-	l			edium-grained	┝	-+			-52.0			
Ŀ	-	$ \cdot \cdot \cdot $	sand-size	ed shell	suluin-grained		⊢	4					1
ŀ	-												1
ļ	-												1
ŀ	-									54.0			
F	_	$ \cdots $				\vdash	-+	5		-54.0			
ļ	-							Ť					
ŀ	-												
F	-	$ \cdots $											
ŀ	-									50.0			1
ŀ	_					┝	-+	6		-56.0			
ļ	-							-					1
ŀ		·.·.											1
ļ	-	l∵:ŀ	From EI.	-57.1 to -57.7	Ft., strong reaction								
ŀ	-		with HCI,	, intermittent s	hell seams								1
ļ	-	ŀ⊡ſ	At El57	7.7 Ft., mostly	fine-grained ak reaction with HCl,	┝		7		-58.0			
Ŀ	-	$ \cdot \cdot \cdot $	2.5Y 5/1	gray			⊢	1					1
F	-	·.·.											1
	DM 183	<u></u>									(Continued)	

(Continued)

	i LO	G (Cont. Sheet)	INSTALLA		Dict	iot		SHEET 2	
ROJECT		· · · · · ·	Jackso COORDINA					OF 2 S	HEETS
St. Johns Cou	intv Fe	asibility	State F				I	NAVD88	
OCATION COORE			ELEVATIO				· · ·		
X = 599,366	Y = 2	2,064,750	-44.0 F	Ŧt.					
ELEV. DEPTH	LEGEND	CLASSIFICATION OF MATERIA	ALS	RÉC.	BOX OR SAMPLE	RQD OR UD	REMAR	BLOWS/ 1 FT.	N-VALUE
-63.1 19.1		At El60.3 Ft., 10Y 5/1 greenish g At El62.5 Ft., little medium to coarse-grained sand-sized shell	ray						
-64.0 20.0				1			-64.0		
		NOTES: 1. USACE Jacksonville is the cust these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results 1 2.0/2.3 SF 1 2 4.0/4.3 SF 10.0/10.3 SF 5 10.0/10.3 SF 6 12.0/12.3 7 14.0/14.3 SF 7 4 8.0/8.3 SF 7 4 Percent Carbonate 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Perce	in ATORY ICATION 				Abbreviations:		

			עום	ISION		ING	TALL			y Desigi	ation	VD-SJINTS	SHEET 1	
DRI	LLING	LOG		South Atlantic						istrict			OF 2 S	
1. PRO	JECT									E OF BIT	See	Remarks	• • •	
S	St. Johns C	County	Feasibi	lity		10.	coo	RDI	NATE	SYSTEM/D		HORIZONTAL	VERTICA	L
							S	State	e Plar	ne, FLE (U	.S. Ft.)	NAD83	NAVD	88
	ING DESIG		1	LOCATION CO		11.	MAN	IUFA	CTU	RER'S DESI	GNATIO			
	/B-SJN15-				20 Y = 2,065,929								MANUAL HA	
	LLING AGEN Corps of Er			1	CONTRACTOR FILE NO. 6738-15-5453	12.	тот	AL S	SAMPI	LES		5		D (UD)
	IE OF DRILL	0	5-0L0	j i	0750-15-5455	42	тот			ER CORE B	OVES	0	0	
						-						0		
	ECTION OF	BORIN	G	DEG. FROM	BEARING	14.	ELE	VAT	ION G	ROUND W	ATER			
	VERTICAL			VERTICAL		15.	DAT	Е ВС	ORING	;		STARTED 04-10-15	COMPLET	
				N1/A		40							04-10	-15
6. THIC	CKNESS OF	OVER	SURDEN	N/A		-				OP OF BOF		-49.8 Ft.		
7. DEP	TH DRILLEI	D INTO	ROCK	N/A						ERY FOR				
8. тот	AL DEPTH	OF BOR	ING	20.0 Ft.		18.	31GI	NAI	URE A	ND TITLE	OF INSP	ECTOR		
ELEV.	DEPTH	LEGEND		CLASSIFICATION	N OF MATERIALS	F	, ŧĚC.	BOX OR SAMPLE	RQD OR UD			REMARKS	BLOWS/ 1 FT.	N-VALUE
-49.8	0.0	$\left \ldots \right $	CAND) poorly graded	mostly fine-grained		F							
	È	[:::	sand-s	sized quartz, few	medium-grained									
	F		sand-s	sized shell, trace	silt, strong reaction									
	F	$ \cdots $	with H	ICI, 2.5Y 7/2 light	(SP)									
	-	••••												
	_						_	1		-51.8				
	5			-51.9 Ft., little fin sized shell	e to medium-grained			-						
	-	· · · · ·	Sund											
	F													
	-									50.0				
	-			-53.7 Ft., mostly		⊢	\rightarrow	2		-53.8				-
	Ē.			Im-grained sand- Im-grained sand-	sized quartz, little		-	_						
	-		At El.	-54.5 Ft., weak r	eaction with HCl,					-54.8				
	-	· . · . ·	2.5Y 6	6/2 light brownish	i gray		-	3						
	F													
	-													
	-	· . · . ·												
	-	[⊡]		-56.8 Ft., mostly	fine-grained	┝		4		-56.8				
	È i	.∷.	sand-s	sized quartz, few	medium-grained		\vdash	4						
	F	$ \cdots $	sand-s	sized shell	-									
	ŀ	[⊡l												
	ļ.	.∷.[-58.2 Ft., little fin sized shell, 2.5Y	e to medium-grained					-58.8				
	F	·∴•	∽At El.	-58.8 Ft., few me	edium-grained	┢	-+	5		-00.0				
	F	[⊡]	sand-	sized shell	0		F							
	È.													
	ŀ	$ \cdots $												
	F	[⊡]												
	-													
	ŀ	$ \cdots $	`-From	El61.2 to -61.6	Ft., silt seam									
	F	[⊡]												
	t	[.·]	. –											
	ŀ	ŀ∷ŀ		El62.3 to -62.6	Ft., shell seam nd to gravel-sized									
	F	·.∵	shell.	10Y 5/1 greenish	na to graver-sized									
	Ł	[:.:]	,	5										
	F	$ \cdot \cdot \cdot $												
	È	$ \cdots $												
	F	$\left[\cdot \cdot \cdot \right]$												
												Continued		

DRII	LLING	LOC	6 (Cont. Sheet)	INSTALLA					SHEET	
				Jacks						SHEETS
St .lo	r ohns Count	tv Fea	asihility	COORDIN State					VERTICAL NAVD8	8
			· · ·	ELEVATIO					10000	0
X = 60	01,320	Y = 2	065,929	-49.8	Ft.					
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERI	ALS	RÉC.	BOX OR SAMPLE	RQD OR UD	REM	ARKS OT	1 FT. N-VALUE
-65.4	15.6	••								
-03.4	13.0		SILT, inorganic-H, little fine-graine sand-sized quartz, trace shell, no r with HCl, N 5/ gray (MH)	d eaction						
-69.8	20.0							-69.8		
			NOTES:					Abbreviations:		
			 USACE Jacksonville is the cust these original files. Soils are field visually classified accordance with the Unified Soils Classification System. Laboratory Testing Results SAMPLE SAMPLE LABOR ID DEPTH CLASSIF 1 2.0/2.3 Sil 2 4.0/4.3 Sil 3 5.0/5.3 Sil 4 7.0/7.3 Sil 5 9.0/9.3 Sil *Lab visual classification based on curve Additional Laboratory Testing Percent Visual Shell Percent Visual Shell Percent Visual Shell Percent Visual Shell Server Visual Shell Dercent Visual Shell Server Visual Shell Server Visual Shell Server Visual Shell 	ATORY ICATION						

					E	Borin	g Designation	VB-SJN15-1	3	
DRILLIN	GLOG	DIVISION		STAL					SHEET 1	
		South Atlantic	_			-	istrict		OF 2 SH	IEETS
I. PROJECT	Court F							Remarks	VEDTIOC	
St. Johns	s County Fe	easibility	10.				SYSTEM/DATUM			
2. BORING DES	IGNATION	LOCATION COORDINATES	11				ne, FLE (U.S. Ft.) RER'S DESIGNATIO			
VB-SJN1		X = 600,302 Y = 2,065,785						<u> </u>	ANUAL HAN	
3. DRILLING AG		CONTRACTOR FILE N		то	TAL .	SAMP		ISTURBED U	NDISTURBEI	D (UD)
	Engineers	- CESAJ 6738-15-5453	'2	. 10		SAIVIP		6	0	
4. NAME OF DR	ILLER		13.	. то	TAL	NUMB	ER CORE BOXES	0		
5. DIRECTION C	OF BORING	DEG. FROM BEARING		. ELI	EVAT		ROUND WATER			
	L	VERTICAL	15	. DA	TE B	ORING	3	STARTED	COMPLETI	
	D	i i					-	04-11-15	04-11-	15
6. THICKNESS	OF OVERBU	irden N/A	16	. EL	EVAT	TION T	OP OF BORING	-43.9 Ft.		
7. DEPTH DRILL	LED INTO R	OCK N/A					VERY FOR BORING	91 %		
8. TOTAL DEPT		NG 20.0 Ft.	18.	. SIC	SNAT	URE A	AND TITLE OF INSPI	ECTOR		
		- 20.011.	<u> </u>		, •••سم				-	IJ
ELEV. DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	1	RËC.	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
-43.9 0.0										
		SAND, poorly-graded, mostly fine to								
Ł		medium-grained sand-sized quartz, few medium-grained sand-sized shell, trace s	ilt							
-		weak reaction with HCl, 2.5Y 7/1 light gra								
F		(SP)								
È.	· · · ·		ļ			1	-45.9			
Ł	$[\cdot \cdot \cdot]$				1	1				
ŀ										
F										
Ę							-47.9			
F			ŀ		2	1	-41.3			
ŀ	_ [:.:.]k,	At El48.4 Ft., mostly fine-grained				1				
F	• • • •	sand-sized quartz, little fine to								
F		medium-grained sand-sized shell, 2.5Y 6/2 light brownish gray								
F			ļ		_		-49.9			
Ł	···· · · · · · · · · · · · · · · · · ·	At El49.9 Ft., few medium-grained sand-sized shell			3					1
F										1
F										
Ļ							-51.9			
F		At El51.9 Ft., mostly fine to	ŀ		4	1	-01.0			
Ł		medium-grained sand-sized quartz, little medium-grained sand-sized shell,								
-	∴∴h 2	2.5Y 6/2 light brownish gray	ŀ		5	{	-52.9			
F		At El52.9 Ft., few medium-grained sand-sized shell, 2.5Y 6/1 gray			<u> </u>	1				
È.			ļ			4	-53.9			
Ł	_[∴. ^ч	From El53.9 to -54.2 Ft., silt seam			6	1				
ŀ	_ [····k	At El54.7 Ft., little fine to medium-grain	ed							
		sand-sized shell, 2.5Y 7/1 light gray								
<u>-55.5 - 11.6</u>		SAND, silty, mostly fine-grained sand-size	ed							
F		quartz, little silt, few fine to medium-grain								
Ł		sand-sized shell, weak reaction with HCl, 10Y 5/1 greenish gray (SM)								
F	╽┆╎┆╎	5 5 - y (- ··· y								
Ę	 ┼┆┼┆ 									
Ł	 ┆┼┆┼ 									
ŀ		From El58.0 to -58.5 Ft., silty very shell	у							
F		sand seam From El58.5 to -58.9 Ft., strong reactior	n I							
AJ FORM 1			-					(Continued)		1

יווסח			G (Cont. Sheet)	INSTALLA				g Designation VB-S	SHEET	
				Jackso						SHEETS
PROJECT	ns Count		acibility	COORDINA State F				1	VERTICAL NAVD88	
									i NAVDOO	
X = 600			,065,785	-43.9 F		01 2		-		
	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD	REMA	NRKS OF	N-VALUE
		- 1111	with HCI, silty sandy shell seam							2
	<u>17.7</u> 18.2		SAND, silty, mostly sand to gravel-s shell, some fine-grained sand-sized 2.5Y 7/2 light gray (SM)	ized quartz,	ſ					
-63.9 2	20.0							-63.9		
			NOTES:					Abbreviations:		
			 USACE Jacksonville is the custo these original files. Soils are field visually classified accordance with the Unified Soils Classification System. Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIC 2.0/2.3 SP 2.4.0/4.3 SP 3.6.0/6.3 SP 4.8.0/8.3 SP 5.9.0/9.3 SP 6.10.0/10.3 MH *Lab visual classification based on g curve Additional Laboratory Testing Percent Visual Shell 	TORY CATION 						

			DIVISIO	ON				TAI			g Designati				EET 1		٦
DRI	LLING	LOG		uth Atlantic							istrict				2 SH	EETS	
1. PRO	JECT						_					See Remark	s				1
S	St. Johns C	county F	easibility				10.	CO	ORD	NATE	SYSTEM/DATU	MHORIZ	ONTAL	VEF	RTICAL		1
											ne, FLE (U.S. I		D83	<u> </u>	NAVD8	8	
							11.	MA	NUF	ACTU	RER'S DESIGNA	TION OF DR			HAMME		
	B-SJN15-			X = 599,		Y = 2,065,677 RACTOR FILE NO.						DISTURB			AL HAM		-
	Corps of En		- CESA	1	1	8-15-5453	12.	то	TAL	SAMP	LES	6			UKBED	(00)	
	IE OF DRILL	0		,	1 0/0		13.	то		NUMB	ER CORE BOXE						-
							<u> </u>					-					-
		BORING		DEG. FRO	м	BEARING	114.	EL	EVAI	ION G	ROUND WATER		ED	- co	MPLETE		-
	VERTICAL						15.	DA	TE B	ORING	3		11-15	i	04-11-1		
<u> </u>	CKNESS OF	OVERB					16.	EL	ΕνΔΤ		OP OF BORING		-			•	1
							<u> </u>				VERY FOR BORI						-
7. DEP	TH DRILLED	D INTO R	OCK	N/A							AND TITLE OF IN		/0				-
в. тот	AL DEPTH (OF BORI	NG 20	0.0 Ft.			[,								
ELEV.	DEPTH	LEGEND	c	LASSIFICATI	ON OF N	IATERIALS	R	ес.	BOX OR SAMPLE	RQD OR UD		REM	ARKS		BLOWS/ 1 FT.	N-VALUE	
45.4																	1
-45.1	0.0	$\left \cdot \cdot \right $	SAND n	oorly-graded	d most	ly fine to	_										ŀ
	F		medium-	grained san	d-sized	quartz, some											F
	-			edium-grain , strong reac		d-sized shell,											t
	-	l:∵:I\	2.5Y 7/1	light gray (S	SP)												ŀ
	-		-At El46	6.3 Ft., little	fine to r	medium-grained											
	-		sand-size	ed shell							47.0						L
	-	ŀ⊡k	-At FI -47	7.6 Ft., few n	nedium	-grained	⊢		1	-	-47.6						╉
	-		sand-size		noulum	gramoa				1							F
	Ł																Ł
	-																F
	-				<i>.</i> .		.										F
	-		At EL -49 sand-size		e fine to	medium-graine	d										Ł
	-	1		0.1 Ft., little i	medium	n-arained	⊢		2	1	-50.1						╋
	-		sand-size			graniea			-	1							F
	-																t
	-																ŀ
	F																F
	-										50.0						þ
	F	l∷:⊦	-At El52	2.6 Ft., few n	nedium	-grained	┢		3	1	-52.6						╉
	F		sand-size			-				1							F
	È i																ţ
	Ł																F
	F																F
	F										-55.1						þ
	F						┢		4	1	-00.1						t
	ŀ									1							F
	F.																þ
	Ł																E
	F										-57.1						F
	F						F		5	1							ţ
	F		• •														\mathbf{F}
	F			7.8 Ft., most		grained weak reaction	⊢		e		-58.1						t
-58.6	13.5	$\cdot \cdot \cdot$	with HCI,	2.5Y 5/1 gr	av				6	1							t
	-		SAND, si	ilty, mostly f	ine-grai	ined sand-sized	~										\mathbf{F}
	F			ttle fine to m		grained eak reaction with											ļ
	È			5/1 greenis			'										t
				5	. ,								tinuad				1

(Continued)

DR	LLING	LO	G (Cont. Sheet)	Jacks		Dict	ict			SHEET 2	
PROJEC			. ,					л	HORIZONTAL	VERTICAL	meels
	ohns Coun	ty Fe	asibility	State					NAD83	NAVD88	
	ON COORDI			ELEVATIO						•	
X = 5	599,289	Y = 2	,065,677	-45.1	Ft.						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	ALS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMAR	BLOWS/ 1 FT.	N-VALUE
-62.3	17.2		At EI61.1 Ft., some sand to grave shell, strong reaction with HCl From EI61.9 to -62.3 Ft., very she silty sand seam SILT, inorganic-H, some fine-graine sand-sized quartz, few fine to medium-grained sand-sized shell, v reaction with HCl, N 4/ dark gray (i	elly very ed weak							
-64.7	19.6	 T T T									
-65.1	20.0							-65.1	viations:		
			 NOTES: 1. USACE Jacksonville is the cust these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABOR/ID DEPTH CLASSIFI 1 2.5/2.8 SF 2 5.0/5.3 SF 3 7.5/7.8 SF 4 10.0/10.3 SF 5 12.0/12.3 SF 6 13.0/13.3 SF *Lab visual classification based on curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell 6 Percent Visual Shell 	in ATORY ICATION 							

			DIVISI				TALI			y Desiyi	allui	I VB-SJNI:		1	٦
DRI	LLING	LOG		uth Atlantic						istrict				SHEETS	5
1. PRO	JECT		00	aantio		_				E OF BIT	See	e Remarks			
s	t. Johns C	county	Feasibility	/		10.	CO	ORDI	NATE	SYSTEM/D		HORIZONTA	L VERTIC	AL	
								State	e Plar	ne, FLE (U	.S. Ft.)) NAD83	NAV	D88	
2. BOR	ING DESIG	NATIO	4	LOCATION C	OORDINATES	11.									
	B-SJN15-			X = 598,2	233 Y = 2,065,473								MANUAL H		
-	LING AGEN				CONTRACTOR FILE NO.	12.	то	TAL S	SAMP	LES		DISTURBED	UNDISTURE	BED (UD))
	orps of Er	<u> </u>	s - CESA	J	6738-15-5453							5	0		_
4. NAN	IE OF DRILL	EK				13.	TO	TAL I	NUMB	ER CORE B	OXES	0			
5. DIRE	CTION OF	BORIN	G	DEG. FROM	BEARING	14.	ELE	EVAT	ION G	ROUND WA	ATER				
\boxtimes	VERTICAL			VERTICAL		15.	DA.	TE B	ORING			STARTED	COMPLE		
	INCLINED			l.		-						04-11-15	04-1	1-15	
6. THIC	CKNESS OF	OVERI	BURDEN	N/A		_				OP OF BOR		-49.9 Ft.			
7. DEP	TH DRILLEI	о інто	ROCK	N/A						ERY FOR					
8. ТОТ	AL DEPTH (OF BOR	ING 2	20.0 Ft.		- 18.	516	, ,	URE A		OF INSI	PECTOR			
ELEV.	DEPTH	LEGEND	c	CLASSIFICATIO	ON OF MATERIALS	F	RÉC.	BOX OR SAMPLE	RQD OR UD			REMARKS	BLOWS/	N-VALUE	
40.0	0.0					\neg									1
-49.9	0.0	<u> </u>	SAND, r	poorly-graded	, mostly fine to	-	ŀ								-0
	F		medium	-grained sand	d-sized quartz, little fine	e									F
	<u>-</u>	$ \cdots $	to mediu silt wea	um-grained sa	and-sized shell, trace h HCl, 2.5Y 7/1 light	Ļ				-50.9					1
	_	[····]	gray (SI	P)	· ·		ŀ	1							F
	Ę		At El5	0.9 Ft., few m	nedium-grained										F
	<u>-</u>		sand-siz		ine to medium-grained										F
	-	$ \cdot \cdot \cdot \cdot $	sand-siz	red shell, stro	ng reaction with HCl										-
	-		∽At El5	2.6 Ft., mostl	y fine-grained					-52.9					F
	-				w fine-grained ak reaction with HCl		ŀ	2							F
	-		34110-312	eu snell, wee											F
	_	••••													F
	-		∽At EL -5	44 Ft few m	nedium-grained	ŀ		3		-54.4					+
	-		sand-siz	zed shell	0		ŀ								Ē
	-	1		4.9 Ft., mostl											E
	-		to mediu	-grained sand	d-sized quartz, little fine and-sized shell, strong	*									F
	-		reaction	with HCI	•					EG 4					F
	-	· · · ·			y fine-grained	ŀ		4		-56.4					+
	_	[···]			eak reaction with HCl nedium-grained		ŀ		1						F
	- 	 	sand-siz		v										F
-57.7	7.8	ŀ .,,,		oorly-araded	with silt, mostly fine to	-				-57.9					\mathbf{F}
	-	[:]	medium	-grained sand	d-sized quartz, few	ſ		5							F
	-	 .	medium	-grained sand	d-sized shell, few silt,										t
	-	·:	(SP-SM)		Cl, 2.5Y 5/1 gray										\vdash
	F	[:•]]	(,											F
	-	 .	At EL -5	9.7 Ft little f	ine to medium-grained										
-60.2	10.3	┟╵╵╢	sand-siz	ed shell, 10Y	5/1 greenish gray	\square									
	-				me fine-grained w medium-grained										F
	<u> </u>				w medium-grained ak reaction with HCl,										F
	-			k gray (MH)											F
	-														F
	-			2.0 Ft., trace	shell, no reaction with										ŀ
	-		HCI												Ę
	-														\vdash
	-														Ę
	-														\mathbf{F}
	-														F
	L														F
	-														上₁

יםם			G (Cont Eboot)	INSTALL	ATION	_		g Designation VB-S		IEET 2	
		LUI	G (Cont. Sheet)		onville			1		2 SI	IEETS
PROJEC		њ. Г е	o o i biliti (COORDIN				1	VERTIC		
	ohns Coun			ELEVATIO	Plane,			/ .		/D88	
	598,233			-49.9			URIN	6			
						Les Les	RQD			NS/	IJ,
ELEV.	DEPTH		CLASSIFICATION OF MATERIA	ALS	RÉC.	BOX OR SAMPLE	RQD OR UD	REM#	IRKS	BLOWS/ 1 FT.	N-VALUE
-67.6	17.7										
			SAND, silty, some fine-grained sar quartz, some silt, little fine-grained sand-sized shell, weak reaction wit 10Y 5/1 greenish gray (SM)								
-69.9	20.0	╞╢╢			_			-69.9			
			 NOTES: 1. USACE Jacksonville is the cust these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABOR. ID DEPTH CLASSIF 1 1.0/1.3 SF 2 3.0/3.3 SF 3 4.5/4.8 SF 4 6.5/6.8 SF 5 8.0/8.3 SP-3 *Lab visual classification based on curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 	in ATORY ICATION 				Abbreviations:			

			DIVISION		IN ¢.	TALLAT		y Desigi	allon	VD-SJINIS	SHEET 1	·
DRI	LLING	LOG	South Atlantic			lacksor		vistrict			OF 2 SH	IEETS
1. PRO	JECT		Could radiate					E OF BIT	See I	Remarks	= •••	
S	St. Johns C	county	Feasibility					SYSTEM/D		HORIZONTAL	VERTICAL	
								ne, FLE (U	,		NAVD8	38
	ING DESIG				11.	MANU	ACTU	RER'S DESI	GNATION			
	B-SJN15-			• Y = 2,066,929] MANUAL HAN	
			rs - CESAJ	6738-15-5453	12.	TOTAL	SAMP	LES		6		, (00)
	IE OF DRILL	<u> </u>			13.	τοται	NUME	ER CORE B	OXES	0		
					-		-	ROUND WA		0		
	ECTION OF	BORIN	G DEG. FROM	BEARING	14.	ELEVA		SKOUND WA		STARTED		
	VERTICAL				15.	DATE I	BORIN	3		04-10-15	04-10-1	
6. THI	CKNESS OF	OVER	BURDEN N/A	I	16.	ELEVA		OP OF BOR	ING	-46.1 Ft.		
								VERY FOR E		100 %		
7. DEP	TH DRILLEI	D INTO	ROCK N/A		18.			AND TITLE C				
в. тот	AL DEPTH	OF BOF	20.0 Ft.			,						
ELEV.	DEPTH	LEGEND	CLASSIFICATION	OF MATERIALS	R	%C''''''''''''''''''''''''''''''''''''	RQD OR UD			REMARKS	BLOWS/ 1 FT.	N-VALUE
					+	\neg						
-46.1	0.0	$\left \cdot \cdot \right $	SAND, poorly-graded, m	ostly fine to	_							
	F		medium-grained sand-si	ized shell, some fine								
-47.0	- 0.9	-ł∷ł	to medium-grained sand silt, strong reaction with									
	-		gray (SP)	•								
	-		LSAND, poorly-graded, m medium-grained sand-si									
	-		fine to medium-grained sand-si									
	-		2.5Y 6/2 light brownish g	gray (SP)								
	-		At El49.1 Ft., little med	dium-grained	⊢	1	-	-49.1				
	-		sand-sized shell	alarri grainea			-					
	<u>-</u>											
-50.6	4.5											
-51.1	5.0]·.·[SAND, poorly-graded, m									
	-	1	medium-grained sand-si									
	È		SAND, poorly-graded, m medium-grained sand-si					50.4				
	-		fine to medium-grained sand-si		⊢	2	-	-52.1				
	F		(SP)				1					
	-		At El52.1 Ft., few med sand-sized shell, trace li									
	L		,									
	F											
	F											
	È i							-55.1				
	F		At El55.1 Ft., little med		\vdash	3	1	-33.1				+
	ŀ	[]	sand-sized shell, discon	tinue silt			1					
	F			,,·								
	È	[:::]	At El56.2 Ft., weak rea 2.5Y 7/2 light gray	action with HCl,								
	Ł		2.01 //2 light gray									
	F	$ \cdot \cdot \cdot \rangle$										
	È i		At El57.6 Ft., mostly fi					-58.1				
	F	 ···· 	sand-sized quartz, trace 2.5Y 5/2 grayish brown	shell, trace silt,	\vdash	4	-	-00.1				+
	ŀ	$ \cdot \cdot \cdot \cdot $	2.01 Jrz grayisti DiOWII				1					
	Ļ											
	Ł	.										
	F	$ \cdot \cdot \cdot $						-60.1				
	F		∽At El60.1 Ft., few med	lium-grained	F	5						
	Ł	.	sand-sized shell									
		<u></u>								Continued	-	

(Continued)

DRI	LLING	LOC	G (Cont. Sheet)	INSTALLA		Dict	ict			SHEET 2	
ROJEC			. /	Jackso COORDIN				им	HORIZONTAL	OF 2 S	ILE IS
	ohns Cour	nty Fea	asibility	State F					NAD83	NAVD88	
	ON COORDI			ELEVATIO					•	·	
X = 6	601,216	Y = 2	,066,929	-46.1 F	t.						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMARI	BLOWS/ 1 FT.	N-VALUE
-61.8	15.7	••••									
			SAND, poorly-graded with silt, mos fine-grained sand-sized quartz, few shell, weak reaction with HCl, 10Y 5/1 greenish gray (SP-SM) At El63.9 Ft., little sand to gravel- shell	silt, trace		6		-62.1			
-66.1	20.0							-66.1			
			NOTES:					Abbrevi	ations:		
			 USACE Jacksonville is the cust these original files. Soils are field visually classified accordance with the Unified Soils Classification System. Laboratory Testing Results SAMPLE SAMPLE LABOR/ ID DEPTH CLASSIFI 	in ATORY CATION 							

DRULING LOG South Atlantic Jacksonville District or 2 1. PROJECT Location Coordinate systemBatum Yeth Coordinate systemBatum Indication of the control of the coordinate systemBatum Yeth C				DIVISION			INS	TALLA			y Designatio			SHEET 1	
St. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility Manual Autor Feasibility 2. Borns County Feasibility I. Coonstants and Feasibility E. Johns County Feasibility E. Johns County Feasibility Manual Feasibility Manual Feasibility 3. Johns County Feasibility I. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility Manual Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility E. Johns County Feasibility Johns Feasibility Johns Feasibility Johns Feasibility Johns Feasibility Johns Feasibility Johns Feasibility Joh	DRI	LLING	LOG		Atlantic						istrict			OF 2 SH	IEETS
State Plane, FLE (U.S. FL) NADB3 NAVI 2. BORING DESIGNATION VIS-SUN15-17 106ATON COORDINATES VIS-SUN15-17 11. MANUFACTURETS DESIGNATION OF DIL MANUFACTURETS DESIGNATION OF DIL DISTURSED 11. MANUFACTURETS 11. MANUFACTURETS <td>1. PRO</td> <td>JECT</td> <td></td> <td></td> <td></td> <td></td> <td>9.</td> <td>SIZE /</td> <td>ND.</td> <td>ТҮРЕ</td> <td>EOFBIT S</td> <td>ee Remarks</td> <td></td> <td></td> <td></td>	1. PRO	JECT					9.	SIZE /	ND.	ТҮРЕ	EOFBIT S	ee Remarks			
2. BORNO DESIGNATION ↓ COATION COORDINATES VBS.NIN15177 1. MANUFACTURER'S DESIGNATION OF DRILL	S	St. Johns C	County F	easibility			10.							VERTICAL	
VB-SINI5-17 X = 600,198, Y = 2.066,797 Imanual. with an intervent of the second secon													<u> </u>	NAVD8	
3. DELLING AGENCY CONTRACTOR FLIE NO. COTSO OF Engineers - CESAJ CONTRACTOR FLIE NO. 2013 OF ENGLIER 12. TOTAL BAMPLES IDSTUREED UNDISTURE 0 4. MARE OF DRULLER 13. TOTAL NUMBER CORE BOXES 0 5. DIRECTION OF BORING INCLASS OF OVERBURDEN ISC. FROM VIA 14. ELEVATION GROUND WATER 15. DATE BORING 04-10-15 04-10 6. THICKNESS OF OVERBURDEN N/A 15. DATE BORING 00 % 14. ELEVATION TOP OF BORING 04-10-15 04-10 7. DEPTH DRILLED INTO ROCK N/A 16. THICKNESS OF OVERBURDEN N/A 17. TOTAL RECOVER YOR BORING 00 % 18. SIGNATURE AND TITLE OF INSPECTOR 42.8 0.0 SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, title medium-grained sand-sized shell, strong rection with HCI, 2.5Y 7/1 light gray (SP) 1 -45.8 49.5 6.7 SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, title medium-grained sand-sized quartz, titte medium-grained sand-sized quartz, title med				1			11.	MAN	UFAG	CTUR	RER'S DESIGNAT				
Copy of Engineers - CESAJ b73e-15-963 1. TOTAL NUMBER CORE BOXES 0 5. DIRECTION OF BORING DEG, FROM BEARING 14. ELEVATION GROUND WATER 1. DIRECTION OF BORING DEG, FROM BEARING 15. DATE BORING 04-10-15 04-11 6. THICKNESS OF OVERBURDEN N/A 16. ELEVATION OR DORING 100 % 16. 7. DEPTH ORILLED INTO ROCK N/A 17. TOTAL RECOVERY FOR BORING 100 % 8. TOTAL DEPTH OF BORING 20.0 Ft. 18. SIGNATURE AND TITLE OF INSPECTOR 42.8 0.0 SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, lifte medium-grained sand-sized quartz, lifte medium-grained sand-sized quartz, lifte medium-grained sand-sized quartz, lifte medium-grained sand-sized quartz, lifte medium-grained sand-sized quartz, lifte medium-grained sand-sized quartz, lifte medium-grained sand-sized quartz, lifte medium-grained sand-sized quartz, lifte medium-grained sand-sized quartz, lifte medium-grained sand-sized quartz, lifte medium-grained sand-sized quartz, lifte medium-grained sand-sized quartz, lifte medium-grained sand-sized quartz, lifte medium-grained sand-sized shell. -51.8 -51.8 53.8 At EL -53.8 Ft., frew medium-grained sand-sized shell. -55.8 -55.8				1	,										
DIRECTION OF BORING DIRECTION OF BORING INCLINES DIRECTION OF PORING INCLINES THICKNESS OF OVERBURDEN N/A THICKNESS OF OVERBURDEN N/A TOTAL DEPTH OF BORING 20.0 Ft. TOTAL RECOVERY FOR BORING 4.8. TOTAL RECOVERY FOR BORING 4.8. TOTA			0	- CESAJ	1	6738-15-5453	12.	тот	AL SA	AMPL	.ES	6	C)	
B. DIRECTION OF BORING DIRECTION OF BORING DIRECTION OF BORING COMPLE Imachine Is. DATE BORING D4-10-15 COMPLE Imachine Is. DATE BORING 04-10-15 COMPLE Imachine Is. DATE BORING 04-10-15 COMPLE Imachine Is. DATE BORING 100 % Imachine 04-10-15 Imachine DEPTH OF BORING 20.0 Ft Imachine	4. NAM	IE OF DRILI	LER				13.	тот	AL NI	имв	ER CORE BOXES	6 0			
UPERTICAL INCLINES VERTICAL INCLUSES VERTICAL INCLUSES 15. DATE BORING STARTED (04-10-15) COMPLE (04-10-15) COMPLE (04-10-15) 3. THICKNESS OF OVERBURDEN IN/A N/A 16. ELEVATION TOP OF BORING (100 %) 42.8 FL. 42.8 FL. 3. TOTAL DEPTH OF BORING 20.0 FL 20.0 FL 18. SIGATURE AND TITLE OF INSPECTOR 100 % ELEV. DEPTH 9 CLASSIFICATION OF MATERIALS REC. SEE 80 B RED 10 B REMARKS Set 84 84 42.8 0.0 SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, little medium-grained sand-sized shell, strong reaction with HCI, 2.5Y 7/1 light gray (SP) 48.8 48.8 49.5 6.7 SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, little medium-grained sand-sized shell, 2.5Y 7/2 light gray (SP) -51.8 -53.8 - - - - - - - - - -	5. DIRE		BORING	; r	DEG. FROM	BEARING	14.	ELE\	ΑΤΙΟ	ON G	ROUND WATER				
Z. DEPTH DRILLED INTO ROCK N/A 17. TOTAL RECOVERY FOR BORING 100 % B. TOTAL DEPTH OF BORING 20.0 Ft. 18. SIGNATURE AND TITLE OF INSPECTOR				· · · · · ·	VERTICAL		15.	DATI	во	RING	ì	i		СОМРLЕТЕ 04-10-1	
A. DEPTH ORDER 20.0 Ft. as. TOTAL DEPTH OF BORING 20.0 Ft. all. classification of materials rec. all. sample and sized shell, strong reaction with HCl, 2.5Y 7/1 light gray (SP) all. all.	6. тніс	CKNESS OF	OVERBU	IRDEN N	I/A		16.	ELE\	ΑΤΙΟ	о т	OP OF BORING	-42.8 Ft.			
A. TOTAL DEPTH OF BORING 20.0 Ft. Itelev. DEPTH g 42.8 0.0 - SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, little reaction with HCl, 2.5Y 7/1 light gray (SP) - - -49.5 6.7 - SAND, poorly-graded, mostly fine to medium-grained sand-sized shell, strong reaction with HCl, 2.5Y 7/1 light gray (SP) - -	7. DEP	TH DRILLE	D INTO R	OCK N/A	4		17.	тот	AL RE	ECOV	/ERY FOR BORI	NG 100 %			
-42.8 0.0 SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, little medium-grained sand-sized quartz, little medium-grained sand-sized shell,	в. тот	AL DEPTH	OF BORIN				18.	SIGN ,	ATU	RE A	ND TITLE OF IN	SPECTOR			
At El48.8 Ft., trace silt -49.5 6.7 -50.5 7.7 -48.8 Ft., trace silt -48.8 -55.8 -55.8 -55.8 -55.8	ELEV.	DEPTH	LEGEND	CLAS	SSIFICATION C	OF MATERIALS	R	<u>ب</u> ۲۵. ۲۵	SAMPLE	RQD OR UD		REMARKS	;	BLOWS/ 1 FT.	N-VALUE
At El48.8 Ft., trace silt -49.5 6.7 -50.5 7.7 -48.8 Ft., trace silt -48.8 -55.8 -55.8 -55.8 -55.8	-42.8	0.0													
C C At El55.8 Ft., mostly fine-grained 5		-		medium-grai reaction with SAND, poort medium-grai to medium-grai SAND, poort medium-grai SAND, poort medium-grai 2.5Y 7/2 ligh At El53.4 I At El53.8 I	Ft., trace silt HCI, 2.5Y 7 HCI, 2.5Y 7 HCI, 2.5Y 7 Hy-graded, m ined sand-siz grained sand-siz grained sand-siz ined sand-siz ined sand-siz ined sand-siz ined sand-siz ined sand-siz ft., 2.5Y 6/1 Ft., few medi	ostly fine to zed shell, strong /1 light gray (SP) zed shell, some fine -sized quartz, ostly fine to zed quartz, little zed shell, gray	•		2		-48.8				
At EL -56.2 Ft., weak reaction with HCl, 2.5Y 5/1 gray 6 -56.8		- - - - - - - -		sand-sized o At El56.2 I	quartz Ft., weak rea	-	_								
		╞	$\left[\cdot \cdot \cdot \right]$												

DRII	LING	LOC	G (Cont. Sheet)	INSTALLA					nation VB-SJN	SHEET	
PROJECT				Jackso COORDIN					HORIZONTAL	OF 2	SHEETS
	nns Coun	tv Fe	asibility	State F					NAD83	NAVD88	
				ELEVATIO					10,200	100000	
X = 60			,066,797	-42.8 F							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERI	ALS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMAR	ks old	N-VALUE
-62.8	20.0		 ✓From EI60.5 to -60.8 Ft., shell so ✓At EI60.8 Ft., few fine-grained so shell, 10Y 5/1 greenish gray 	eam and-sized				-62.8			
-02.0	20.0		NOTES:						iations:		
			ID DEPTH CLASSIF 	d in ATORY TICATION P* P* P* P* P* P* P* P* P*							

			DIVISI				IN	STAI			g Desig	natio	I VD-OJIN	10-		
DRI	LLING	LOG		uth Atlantic							istrict				OF 2 S	
1. PRO	JECT						9.	SIZI	E ANC	ТҮРІ	E OF BIT	Se	e Remarks			
S	St. Johns C	County	Feasibility	ý			10.				SYSTEM/D		HORIZONT		VERTICA	
2 805	ING DESIG	NATIO	J			FES	44				ne, FLE (L) NAD83		NAVE	
	B-SJN15-		N	1		2,066,696	111	. 1714	NUF	40101	KEK 2 DE2	IGNATI	UN OF DRILL	_	AUTO HAMN MANUAL HA	
	LING AGE	-		1 1 000		TOR FILE NO.	40		.			:	DISTURBED	_	NDISTURBE	
	Corps of Er	<u> </u>	rs - CESA	'n	6738-1	15-5453	12	. 10	IAL	SAMPI	.E3		5		0	
4. NAN	IE OF DRILL	LER					13.	. то	TAL	NUMB	ER CORE E	BOXES	0			
5. DIRI	ECTION OF	BORIN	G	DEG. FRO	MBE	ARING	14.	. EL	EVAT	ION G	ROUND W	ATER				
	VERTICAL Inclined			VERTICA	L		15.	. DA	TE B	ORING	;		STARTED 04-10-1	5	COMPLE 04-10	
6. THIC	CKNESS OF	OVER	BURDEN	N/A			16	. EL	EVAT	ION T	OP OF BOI	RING	-43.8 Ft.			
7. DEP	TH DRILLEI	р інто	ROCK	N/A			17.	. то	TAL	RECO	/ERY FOR	BORING	3 100 %			
8. тот	AL DEPTH	OF BOI	RING 2	20.0 Ft.			18.	. SIC	GNAT	URE A	ND TITLE	OF INS	PECTOR			
ELEV.	DEPTH	LEGEND	c	CLASSIFICATI	ON OF MAT	ERIALS		RËC.	BOX OR SAMPLE	RQD OR UD			REMARK	s	BLOWS/ 1 FT.	N-VALUE
40.0	0.0						╡									
-43.8	0.0		SAND, p	poorly-grade	d, mostly fi	ine to	_									
	-		medium	-grained sar	nd-sized qu	artz, little										
	-	•••••	reaction	-grained sar with HCI, 2.	ia-sizea sn 5Y 7/1 liah	ен, weaк t grav (SP)										
	_	:···:			o	(0.)										
	-	· · · ·														
	-	$\cdot \cdot \cdot$									-46.3					
	-	· · · · ·	From El	46.3 to -46	6.7 Ft., 1/4'	' diameter	ŀ		1		-40.3					+
	_			sandy silt se					<u> </u>							
	_															
	-	••••														
	-															
	_															
	-		∽At El4	8.7 Ft., 2.5Y	6/2 light b	rownish gray										
	-															
	-										-49.8					
	-	• • • •							2							
	F															
	-	$ \cdots $														
	F															
	Ē			1.8 Ft., few	medium ar	ained	┝		3		-51.8					
				zed shell, tra					<u> </u>							
	-	.														
	F															
	È										52 0					
	<u> </u>		∽At El5	3.8 Ft., mos	tly fine-ara	ined	ŀ		4		-53.8					+
	F		sand-siz	zed quartz, li	ttle fine-gra	ained			<u> </u>	1						
	-		sand-siz	zea snell												
	L	[:·:·]														
	F										-55.8					
-56.1	_ 12.3	· · · ·		5.8 Ft., mos			ŀ		5		00.0					
				-grained sar		artz, little d-sized shell,	/									
	–		trace lim		ameu Sall	น-อเ∠ฮน รักษ์ไ,	/									
	È.		SAND, s	silty, mostly	fine-graine	d sand-sized	-									
-57.8	14.0		quartz, l	ittle fine to m	nedium-gra	lined										
	-		HCI. 10	Y 5/1 greenis	e siit, wear sh grav (S	< reaction with M)	'/									
	F		SAND, p	poorly-grade	d with silt,	mostly	-									
		 •	fine-grai	ned sand-siz	zed quartz.	little fine to										

(Continued)

DRI	LLING	LOC	G (Cont. Sheet)	Jackso		Diete	ict		SHEET 2 OF 2 S	
ROJEC			- /						VERTICAL	meelð
	- ohns Coun	ty Fea	asibility	State				!	NAVD88	
	ON COORDI			ELEVATIO					•	
X = 5	99,190	Y = 2	,066,696	-43.8	=t.					
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	ALS	RÉC.	BOX OR SAMPLE	RQD OR UD	REMA	RKS OTA 19	N-VALUE
-63.8	20.0		CLASSIFICATION OF MATERIA medium-grained sand-sized shell, 1 weak reaction with HCI, 2.5Y 6/2 ligbrownish gray (SP-SM) SAND, silty, mostly fine-grained sand quartz, little sand to gravel-sized shell, 10Y 5/1 greenish gray (SM) At EI62.6 Ft., little medium to coarse-grained sand-sized shell NOTES: 1. USACE Jacksonville is the cust these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE 1 2.5/2.8 2 6.0/6.3 3 8.0/8.3 4 10.0/10.3 5 12.0/12.3 *Lab visual classification based on curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell	ew silt, nd-sized hell, little odian for in ATORY ICATION 		BOX		_63.8 Abbreviations:		

			DIVISI	<u></u>		INS	TALL			g Designatio		SHEET 1	
DRI	LLING	LOG		uth Atlantic						istrict		OF 2 SH	IEETS
PRO	JECT										e Remarks		
S	St. Johns C	ounty	Feasibility	1		10.	CO	ORDI	NATE	SYSTEM/DATUM	HORIZONTAL	VERTICAL	
										ne, FLE (U.S. Ft	/	NAVD8	38
	B-SJN15-		I I			11.	MA	NUFA	CTU	RER'S DESIGNAT] AUTO HAMME] MANUAL HAN	
	LING AGEN	-	i	X = 598,18	ONTRACTOR FILE NO	<u> </u>							
	Corps of En		s - CESA,	1	6738-15-5453		тот	TAL S	SAMPI	LES	6	0	(02)
	IE OF DRILL	0		· · ·		13.	тот		UMB	ER CORE BOXES	0		
						14	FLF	VAT		ROUND WATER	-		
	ECTION OF I	BORIN	Ì	DEG. FROM	BEARING	<u> </u>					STARTED	COMPLETE	D
	INCLINED					15.	DA	ГЕ ВС	ORING	3	04-10-15	04-10-1	15
тни	CKNESS OF	OVER	URDEN	N/A		16.	ELE	VAT	ION T	OP OF BORING	-45.5 Ft.		
DER			BOCK	N/A		17.	то	TAL F	RECO	VERY FOR BORIN	G 100 %		
						18.	SIG	NAT	URE A	ND TITLE OF INS	PECTOR		
тот	AL DEPTH C	OF BOR	ING 2	0.0 Ft.			,						
LEV.	DEPTH	LEGEND	С	CLASSIFICATION	OF MATERIALS	R	хёс.	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
45.5	0.0					T	T						
-10.0	- 0.0	<u></u>	SAND, p	oorly-graded, r	mostly fine-grained	\neg	ŀ						1
l	-		sand-size	ed quartz, little	fine to sized shell, weak								
l	_	••••			7/1 light gray (SP)								
l	-				ne to medium-graine	ed							
l	-		sand-siz	ed shell, strong	reaction with HCI								
	-				e to medium-grained								
	-		sand-size	ed shell						-48.5			
l	-	$ \cdot \cdot \cdot $		8.5 Ft., mostly f		F		1		-+0.5			
l	-			-grained sand-s -grained sand-s	sized quartz, few								
	_	••••	medium-	-grained sand-s	sized limestone, wea	ık							
l	-		reaction	with HCI									
	-												
l	-	$ \cdots $	∽At EL -5(0.8 Ft little fin	e to medium-grained								
	-		sand-size	ed shell						-51.5			
	-	∴.:		1.5 Ft., few me		F		2					1
	E Contraction of the second se		sand-size	ed shell, trace	SIIT								
	L	}	∽At El5:	2.5 Ft little find	e to medium-grained								1
l	-	$ \cdot \cdot \cdot \cdot $	sand-size										
	<u>-</u>	[⊡]											1
l	L	$ \cdot \cdot \cdot $											
	-	····								-54.5			
	F			4.5 Ft., few me		F		3					
		$ \cdots $	sanu-SiZi	ed shell, discor	IIIIUE SIII								1
	<u>-</u>	[∷∷]											1
	F	$ \cdot \cdot \cdot $	∽At El5	5.8 Ft., 2.5Y 7/2	2 light gray								1
	-	$ \cdots $		6.5 Ft., trace si	1+	┝	-+	4		-56.5			
	-	[∷∷	ALLI00	o.o i i., iidue Sl			ŀ	4					1
	<u> </u>	ŀ∷ŀ	∽At El -5	7.3 Ft., 2.5Y 7/	1 light grav								
	-	···		,	J - J - J								1
1	F									-58.5			
1		1		Q E Et moothui	fine-grained	⊢	\rightarrow	5		-00.0			
	-	[`.`.']											
					e shell, trace silt		ľ						
		· · · ·											
			sand-siz		e shell, trace silt			6		-60.0			

DR	LLING	LO	G (Cont. Sheet)	INSTALLA						SHEET	
PROJEC				Jackso				114	HORIZONTAL	OF 2 S	SHEETS
	π ohns Coun	ty Fe	asibility	COORDIN State I					NAD83	NAVD88	
	ON COORDI			ELEVATIO							
X = {	598,188	Y = 2	,066,636	-45.5 l	⁼t.						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATER	IALS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMAR	BLOWS 1 FT.	N-VALUE
-62.3 -65.5	15.1 16.8 20.0		ID DEPTH CLASSI 1 3.0/3.3 S 2 6.0/6.3 S 3 9.0/9.3 S 4 11.0/11.3 S 5 13.0/13.3 S	m-grained ith HCl, el-sized ed rained rained rith HCl, and-sized stodian for d in RATORY FICATION 				-65.5 Abbrevi	iations:		

			DIVISI	ON		INS	TALLA			g Designation		SHEET 1	
DRI	LLING	LOG	_	uth Atlantic			Jackso			istrict		OF 2 SI	
1. PRO	JECT										ee Remarks	I	
S	St. Johns C	ounty F	easibility	1		10.	C00	RDIN	IATE	SYSTEM/DATU	M HORIZONTAL	VERTICAL	
							St	ate	Plan	ne, FLE (U.S. F	t.) NAD83	NAVD	88
2. BOR	ING DESIG	NATION		LOCATION COOP	RDINATES	11.	MAN	JFA	CTUF	RER'S DESIGNA			ER
	/B-SJN15-			X = 601,180	, ,								
	LLING AGEN			1	NTRACTOR FILE NO. 6738-15-5453	12.	тоти	LS	AMPL	LES	DISTURBED	UNDISTURBEI	D (UD)
	Corps of Er	0	5 - CESA	Ji	0730-10-0403	40	TOT					U	
						-				ER CORE BOXE	-		
	ECTION OF	BORING	i	DEG. FROM	BEARING	14.	ELEV	ATIO	ON G	ROUND WATER			
	VERTICAL			VERTICAL		15.	DATE	во	RING	6	STARTED 04-09-15	COMPLET 04-09-	
												04-09-	15
6. THIC	CKNESS OF	OVERB	URDEN	N/A		16.				OP OF BORING	-40.7 Ft.		
7. DEP	TH DRILLEI	Ο ΙΝΤΟ Ι	ROCK	N/A						ERY FOR BORI			
8. тот	AL DEPTH	OF BOR	NG 2	0.0 Ft.		18.	JIGN	AIU	KE A	ND TITLE OF IN	ISPEC I UK		
ELEV.	DEPTH	GEND	c		F MATERIALS			SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
		Ē						SA	00				-'z
-40.7	0.0	$ \top$				Τ		T					
-40.7			SAND, p	oorly-graded, m	ostly fine to	_		+					
	ŀ	$ \cdot\cdot\cdot $	medium	-grained sand-siz	zed quartz, little fine)							
	-				sized shell, strong /1 light gray (SP)								
	-												
	-												
	-												
	Ł												
	_	.∵. ₋		3.7 Ft., few medi	um-grained	⊢		1		-43.7			
	-		sand-siz		uni-granieu			-					
	-	$[\cdot \cdot \cdot]$											
	-												
	Ľ												
	-												
	-												
	-	l:∴k			iuma amaina ad					-46.7			
	-			6.7 Ft., little med ed shell, trace si			-	2					
	-			,									
	-												
	-	l∷î	-At El4	8.1 Ft., 2.5Y 7/2	light gray								
	┝												
	F	l ∴ k		9.2 Ft., few medi	um-grained	┝		-		-49.2			
	È.		sand-siz		un-graineu			3					
-50.0	9.3	ł∷ł	-SAND r	oorly-graded, m	ostly fine to								
	F		medium	-grained sand-siz	zed shell, some fine								
-50.9	<u>10.2</u>	∔∷¦		m-grained sand 6/2 light browni	sized quartz, trace								
	Ł	⊡ `	SAND, b	boorly-graded, m	ostly fine to					_ / _			
	┝	ŀ∴h	medium	-grained sand-siz	zed quartz, some	┝		4		-51.7			
	È i	:∵:: \			and-sized shell, fev ICI, 2.5Y 7/2 light	v	H	-					
	F	$ \cdot \cdot \cdot $	gray (SI	P)									
	F	[∷∵]\		1.7 Ft., few medi						-53.2			
	ļ.	[∷∷[\		ed shell, weak re 2.6 Ft., 2.5Y 5/1		F		5					
	F	ŀ∴ŀ	-At El5	3.2 Ft., mostly fir				1					
-54.5	- L 13.8	$ \cdots $		ed quartz	aray								
-04.0	<u></u>	tiiit	SAND S	3.8 Ft., 2.5Y 6/1 silty, mostly fine-	grained sand-sized	\neg							
	ŀ		quartz, li	ttle fine to medic	im-grained								
	F		sand-siz	ed shell, little silt Y 5/1 gray (SM)	, weak reaction with	h							
			1101, 2.3	i Jirylay (JIVI)									

			Closet Chaot	INSTALLA	TION			g 200.g.			SHEET	2	1
	LLING	LUC	G (Cont. Sheet)	Jackso	nville	Distr	ict				OF 2	SHEETS	
PROJEC				COORDINA					HORIZONTAL		RTICAL		
St. J	ohns Coun	ty Fea	asibility	State F	lane,	FLE	(U.S.	Ft.)	NAD83	!	NAVD88		
	ON COORDI			ELEVATIO		OF B	ORIN	G					
X = 6	501,180	1	,067,947	-40.7 F	t.								
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	. \$	RÉC.	BOX OR SAMPLE	RQD OR UD		REMARK	s	BLOWS/	N-VALUE	- 15
-56.9	16.2				-								- 15 - - - -
00.7	20.0							00.7					E
60.7	20.0		NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified in accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIC 1 3.0/3.3 SP 2 6.0/6.3 SP 3 8.5/8.8 SP 4 11.0/11.3 SP 5 12.5/12.8 SP *Lab visual classification based on g curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual	n TORY CATION				60.7 Abbrevia	ations:				
	DM 183				Í								L ₃₅

LING		DIVISIO				TALL	ATIC)N			SHEET 1		
	LUG	Sout	th Atlantic		1				istrict		OF 2 SH	IEETS	
ECT		500								ee Remarks			
Johns Co	ounty F	easibility			10.	CO	ORDI	NATE	SYSTEM/DATUN		VERTICAL		
						5	State	e Plar	ne, FLE (U.S. F	t.) NAD83	NAVD	38	
IG DESIGN	NATION		LOCATION COOR	DINATES	11.	MA	NUFA	ACTUR	RER'S DESIGNAT			IR	
											MANUAL HAN		
		05044			12.	то	TAL S	SAMPI	.ES		i) (UD)	
		- CESAJ	6	738-15-5453	_						0		
	LR				13.	TOT	TAL N	NUMB	ER CORE BOXES	6 0			
TION OF I	BORING		DEG. FROM	BEARING	14.	ELE	VAT	ION G	ROUND WATER				
ERTICAL			VERTICAL		15.	DAT	ГЕ ВС	ORING	1	STARTED	COMPLETE		
CLINED											04-10-1	15	
NESS OF	OVERB	JRDEN	N/A		16.	ELE	VAT	ION T	OP OF BORING	-42.2 Ft.			
1 DRILLED	INTO R	оск	N/A		17.	тот	TAL F	RECO	ERY FOR BORIN	IG 96 %			
					18.	SIG	NAT	URE A	ND TITLE OF IN	SPECTOR			
DEPTH C	F BORI	NG 20	.0 Ft.			,							
DEPTH	LEGEND	CL	ASSIFICATION O	F MATERIALS	R	ес.	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE	
0.0		SAND. pc	orly-graded, mo	ostly fine to	_	ŀ							
		medium-c	grained sand-siz	ed quartz, some								1	
												1	
	••••	2.5Y 5/1 g	gray (SP)	nur rioi,									
			,										
									-45.7				
	ŀ…∩	At El45	.7 Ft., little medi	um-grained	Γ		1						
		sand-size	a snell										
	ŀ∴k	Δt EI _49	2 Et few mediu	Im-grained	- -	-	2		-49.2				
	.∷.	sand-size	d shell	ani granica		┠	۷					1	
	·.∵.											1	
	[⊡]											1	
	l∷:.											1	
	·.·.											1	
	[···]											1	
									-52.7				
	[:∴:ľ\	At El52	.7 Ft., little medi	um-grained	F		3		-			1	
		sand-size	a shell, disconti	nue silt									
	$ \cdots $												
	·.∵.												
	[:::]												
	$ \cdots $											1	
	$ \cdot \cdot \cdot $											1	
	1					1						1	
									-56.2				
		At El56.	.3 Ft., 2" sandy	silt seam	$\left \right $		4		-56.2				
	G DESIGN -SJN15-2 ING AGEN rps of En of Drill TION OF I ERTICAL CLINED NESS OF I DRILLED	G DESIGNATION -SJN15-21 ING AGENCY rps of Engineers OF DRILLER TION OF BORING RETICAL CLINED NESS OF OVERBU 1 DRILLED INTO R DEPTH 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	IG DESIGNATION -SJN15-21 ING AGENCY rps of Engineers - CESAJ OF DRILLER TION OF BORING INESS OF OVERBURDEN I DRILLED INTO ROCK I DRILLED INTO ROCK I DEPTH I DEPTH<	IG DESIGNATION LOCATION COOR -SJN15-21 X = 600,147 ING AGENCY COP rps of Engineers - CESAJ COP OF DRILLER DEG. FROM TION OF BORING DEG. FROM RESS OF OVERBURDEN N/A I DRILLED INTO ROCK N/A DEPTH OF BORING 20.0 Ft. DEPTH 2 U CLASSIFICATION O 0.0 SAND, poorly-graded, mc Medium-grained sand-siz fine to medium-grained sand-siz In the tomedium-grained sand-siz fine to medium-grained sand-siz SAND, poorly-graded, mc Sand-sized shell At El45.7 Ft., little medi At El49.2 Ft., few mediu At El49.2 Ft., few mediu </td <td>G DESIGNATION LOCATION COORDINATES -SJN15-21 X = 600,147 Y = 2,067,852 ING AGENCY CONTRACTOR FILE NO. rps of Engineers - CESAJ 6738-15-5453 OF DRILLER DEG. FROM BEARING TION OF BORING VERTICAL Image: Classification of materials NESS OF OVERBURDEN N/A I DRILLED INTO ROCK N/A DEPTH OF BORING 20.0 Ft. DEPTH G CLASSIFICATION OF MATERIALS 0.0 SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, some fine to medium-grained sand-sized shell, trace silt, weak reaction with HCl, 2.5Y 5/1 gray (SP) <td>Image: Subset of the second state o</td><td>G DESIGNATION LOCATION COORDINATES 11. MA -SJN15-21 X = 600,147 Y = 2,067,852 ING AGENCY CONTRACTOR FILE NO. 12. TO OF DRILLER 13. TO 14. ELE TION OF BORING DEC. FROM BEARING 14. ELE RESS OF OVERBURDEN N/A 16. ELE 15. DAY NESS OF OVERBURDEN N/A 16. ELE 17. TO IDEPTH OF BORING 20.0 Ft. 18. SIG 18. SIG DEPTH OF BORING 20.0 Ft. 18. SIG 18. SIG 0.0 SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, some fine to medium-grained sand-sized vertice, some fine one dium-grained sand-sized shell, trace silt, weak reaction with HCl, 2.5Y 5/1 gray (SP) 14. EL At EL -49.2 Ft., few medium-grained sand-sized shell 16. SIG 17. TO At EL -49.2 Ft., few medium-grained sand-sized shell 18. SIG 18. SIG</td><td>G DESIGNATION LOCATION COORDINATES 11. MANUFA -SJN15-21 X = 600,147 Y = 2,067,852 12. TOTAL S ING AGENCY CONTRACTOR FILE NO. 6738-15-5453 12. TOTAL S OF DRILLER 13. TOTAL I 14. ELEVAT TION OF BORING DES. FROM BEARING 14. ELEVAT IS DATE BOR 14. ELEVAT 15. DATE BOR 16. ELEVAT ID RILLED INTO ROCK N/A 16. ELEVAT 18. SIGNAT DEPTH OF BORING 20.0 Ft. 18. SIGNAT 18. SIGNAT DEPTH G CLASSIFICATION OF MATERIALS REC. GGS 0.0 SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, some fine to medium-grained sand-sized shell, trace silt, weak reaction with HCl, 2.5Y 5/1 gray (SP) 1 1 At EL -45.7 Ft., little medium-grained sand-sized shell 1 1 At EL -49.2 Ft., few medium-grained sand-sized shell 2 1 At EL -49.2 Ft., few medium-grained sand-sized shell 2 1</td><td>State Plar Image: Signation of Coordinates -SJN15-21 X = 600,147 Y = 2,067,852 11. MANUFACTUR Image: Signation of Coordination of Price of Engineers - CESAJ 6738-15-5453 12. TOTAL SAMPI OF DRILLER 13. TOTAL NUMB 14. ELEVATION G TION OF BORING CLINED DEC. FROM VERTICAL 15. DATE BORING TION OF BORING CLINED N/A 16. ELEVATION G INESS OF OVERBURDEN N/A 16. ELEVATION T IDBILLED INTO ROCK N/A 17. TOTAL RECO DEPTH OF BORING 20.0 Ft. 18. SIGNATURE A DEPTH OF BORING 20.0 Ft. Ref: Signature A DEPTH OF BORING 20.0 Ft. 18. SIGNATURE A DEPTH OF BORING 20.0 Ft. Ref: Signature A DEPTH OF BORING 20.0 Ft. 18. SIGNATURE A DEPTH OF BORING 20.0 Ft. 18. SIGNATURE A DEPTH OF BORING 20.0 Ft. 18. SIGNATURE A Matter Clined and-sized quartz, some fine to medium-grained sand-sized quartz, some fine to medium-grained sand-sized shell, trace sit, weak reaction with HCl, 2. SY 5/1 gray (SP) 1 Matter A-Sized shell 1 1 Matter A-Sized shell 2 2 Matter A-Sized shell 2 2 <</td><td>State Plane, FLE (U.S. F State Plane, FLE (U.S. F OF ON ING ACTOR FILE NO. To To A Decomposition of FLE NO. IS OF OVERBURDEN N/A IS ELEVATION OF DO F BORING IDE TH OF BORING 20.0 Ft. DEPTH OF BORING 20.0 Ft. SAND, poorly-graded, mostly fine to medium-grained sand-sized shell, trace sitt, weak reaction with HCl, 2. SY 5/1 gray (SP) At EL -45.7 Ft., little medium-grained sand-sized shell <th colsp<="" td=""><td>State Plane, FLE (U.S. FL) NAB83 State Plane, FLE (U.S. FL) NAB83 SLN15-21 X = 600,147 Y = 2,067,852 No AGENCY SUN15-21 X = 600,147 Y = 2,067,852 In MARUPACTURER'S DESIGNATION OF DRILLED No AGENCY BOTURES 12. TOTAL SAMPLES DISTURES OPTILIER 13. TOTAL NUMBER CORE BOXES TOTO OF BORING DEC, FROM BEARING ISTURESE ISTURESE</td><td>State Plane, FLE (U.S. FL) NAD83 NAVD2 SJN15:21 X = 600;147 Y = 2,067,852 1. MANUFACTURER'S DESIGNATION OF DRLL Autor HamMan NO AGENCY CONTRACTOR FILE NO. 12. TOTAL SAMPLES DISTURED UNDISTURED NO AGENCY CONTRACTOR FILE NO. 13. TOTAL SAMPLES 6 0 OF DRILLER 13. TOTAL NUMBER CORE BOXES 0 14. ELEVATION OROUND WATER TON OF BORING UPEC, FROM BEARING 15. DATE BORING 04-10-15 04-10. ITON OF BORING UPEC, FROM BEARING 16. ELEVATION OF OF BORING 04-10. 16. ISIGNATURE AND TOP OF BORING 20.0 FI. TOTAL ADDRESS OF OVERBURGEN N/A 16. ELEVATION TOP OF BORING 06.% DEPTH OF BORING 20.0 FI. TOTAL ADDRESS OF OVERBURGEN N/A 16. ELEVATION TOP OF BORING 96.% DEPTH Ø CLASSIFICATION OF MATERIALS REC. SE ROD REMARKS SE 0.0 SAND, poorly-graded, mostly fine to medium-grained sand-sized shell, trae sit, twask reaction with HCl, 2.5Y 5/1 gray (SP) 45.7 45.7 At EL49.2 FL, few medium-grained 3 -45.7 -45.7 At EL, -52.7 FL, littite medium-grai</td></th></td></td>	G DESIGNATION LOCATION COORDINATES -SJN15-21 X = 600,147 Y = 2,067,852 ING AGENCY CONTRACTOR FILE NO. rps of Engineers - CESAJ 6738-15-5453 OF DRILLER DEG. FROM BEARING TION OF BORING VERTICAL Image: Classification of materials NESS OF OVERBURDEN N/A I DRILLED INTO ROCK N/A DEPTH OF BORING 20.0 Ft. DEPTH G CLASSIFICATION OF MATERIALS 0.0 SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, some fine to medium-grained sand-sized shell, trace silt, weak reaction with HCl, 2.5Y 5/1 gray (SP) <td>Image: Subset of the second state o</td> <td>G DESIGNATION LOCATION COORDINATES 11. MA -SJN15-21 X = 600,147 Y = 2,067,852 ING AGENCY CONTRACTOR FILE NO. 12. TO OF DRILLER 13. TO 14. ELE TION OF BORING DEC. FROM BEARING 14. ELE RESS OF OVERBURDEN N/A 16. ELE 15. DAY NESS OF OVERBURDEN N/A 16. ELE 17. TO IDEPTH OF BORING 20.0 Ft. 18. SIG 18. SIG DEPTH OF BORING 20.0 Ft. 18. SIG 18. SIG 0.0 SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, some fine to medium-grained sand-sized vertice, some fine one dium-grained sand-sized shell, trace silt, weak reaction with HCl, 2.5Y 5/1 gray (SP) 14. EL At EL -49.2 Ft., few medium-grained sand-sized shell 16. SIG 17. TO At EL -49.2 Ft., few medium-grained sand-sized shell 18. SIG 18. SIG</td> <td>G DESIGNATION LOCATION COORDINATES 11. MANUFA -SJN15-21 X = 600,147 Y = 2,067,852 12. TOTAL S ING AGENCY CONTRACTOR FILE NO. 6738-15-5453 12. TOTAL S OF DRILLER 13. TOTAL I 14. ELEVAT TION OF BORING DES. FROM BEARING 14. ELEVAT IS DATE BOR 14. ELEVAT 15. DATE BOR 16. ELEVAT ID RILLED INTO ROCK N/A 16. ELEVAT 18. SIGNAT DEPTH OF BORING 20.0 Ft. 18. SIGNAT 18. SIGNAT DEPTH G CLASSIFICATION OF MATERIALS REC. 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DRILLI	NG LO	G (Cont. Sheet)	INSTALL		Dict	ict			SHEET	
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				14 E			ROUND WATER	-		
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				15. D	ATE B	ORING	5	04-10-15	04-10-	
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ŀ	l.•.•.h	2.5Y 5/1 gray			3	1	-52.8			-
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	l∵∵h	medium mains i ser i si ci								
		medium-grained sand-sized s	shell rained							
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		medium-grained sand-sized s At El54.8 Ft., mostly fine-gr	rained							
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		medium-grained sand-sized s At El54.8 Ft., mostly fine-gr sand-sized quartz, 2.5Y 7/1 li -At El57.1 Ft., weak reactior	rained ght gray		5		-57.3			
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DRILLING LOG Bivision INSTALLATION INSTALLATION 1. PROJECT Such Attentic January Status 9. Size Am TYPE OF BIT See Remarks St. Johns County Feasibility 9. Size Am TYPE OF BIT See Remarks See Remarks 2. ORING DESIGNATION LOCATION COORDINATES 1. MANUFACITURER'S DESIGNATION OF DILL JANTO ANAMEE VB.S.NI152.3 X = 56, 152 Y = 2,057, 181 MANUFACITURER'S DESIGNATION OF DILL JANTO ANAMEE 0. Compo of Engineers - CEEAJ CONTANCOP FILE (0. S. TOTAL HUMBER CORE BOOKS 0 1 1. MARE OF PRILING 15. ELEVATION GROUND WATER 15. ELEVATION GROUND 448,4FL 0 2. DIFFUNCTION OF DORING 1010,4770,41 15. ELEVATION TOP OF BORING 44.4 FL 3. THICKNESS OF OVERBURDEN NA 17. TOTAL HECOVERY FOR BORING 448,4FL 3. TOTAL DEPTIN OF BORING 20,0 FL 15. SIGNATURE AND TITLE OF INSPECTOR 48.4 0.0 SAMD, groothy gradef, mathy fine cgained and sand sized shell, mathy fine cgained and said sized shell, mathy fine cgained and sized shell, mathy fine cgained and sized shell, mathy fine cgained and sized shell, mathy fine cgained and sized shell, SGT 71 light gray 1 48.4 0.1 SAMD, groothy gradef, methy fine cgained and sized shell, SGT 71 light gray 1 48.4 0.3 SMATURE AND TITLE OF NSPECTOR 1						-			g Designation	VD-33IN13-2		
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St. Johns County Feasibility Description 2: BORING DESIGNATION LOCATION COORDINATES VIS-SANIE-23 X=590,152 VIS-SANIE-23 X=590,152 VIS-SANIE-23 X=590,152 VIS-SANIE-23 CONTRACTOR FILE NO. DISTURBED FUNCTION CONTRACTOR FILE NO. Composition of Parkit-Landmerse Manual Anametes Contract United Parkit-Composition of Parkit-Landmerse Manual Anametes </td <td></td> <td></td> <td>50U</td> <td>un Auantic</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Pomarka</td> <td></td> <td>HEEIS</td>			50U	un Auantic						Pomarka		HEEIS
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Department Compact Fergineers - CESAJ Contractors FILE NO. Total SAMPLES Distributes Undistructed (up) Corps of Engineers - CESAJ 6738-15-5433 13. TOTAL NUMBER CORE BOXES 0 Image: Strain St	. BORING DESI	GNATION	i	LOCATION CO	ORDINATES	11. M						
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-61.0 - 12.6 ···· From EI60.3 to -61.0 Ft., silt seam -61.0 - 12.6 ···· SILT, inorganic-H, little fine-grained sand-sized quartz, few medium-grained sand-sized shell, weak reaction with HCl,	-	. [·…]	At El59	.4 Ft., little fin	e to medium-grained							
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- SILT, inorganic-H, little fine-grained sand-sized quartz, few medium-grained sand-sized shell, weak reaction with HCl,		⊡ î	From El.	-60.3 to -61.0	Ft., silt seam							
sand-sized quartz, few medium-grained sand-sized shell, weak reaction with HCl,	<u>-61.0 - 12.6</u>		SILT ino	rganic-H little	fine-grained	_						
	F		sand-size	ed quartz, few	medium-grained			1				
	F				reaction with HCl,							
	È.			gray (IVIII)								
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DRULLING LOG (Cont. Sheet) Jacksonville District PROJECT Jacksonville District MORIZONTAL St. Johns County Feasibility State Plane, FLE (U.S. FL) NADB3 LOCATION COORDINATES ELEVATION TOP OF BORING -48.4 FL -48.4 FL -48.4 FL -65.6 17.2 Image: County Feasibility State Plane, FLE (U.S. FL) NADB3 -65.6 17.2 Image: County Feasibility -48.4 FL -65.6 17.2 Image: County Feasibility State Plane, FLE (U.S. FL) NADB3 -65.6 17.2 Image: County Feasibility -68.4 FLE -65.6 17.2 Image: County Feasibility -68.4 FLE -65.6 17.2 Image: County Feasibility SAMD, silty, mosity fine to medium-grained sand-sized quartz, some silt, few medium-grained sand-sized quartz, some silt, few medium-grained sand-sized shell, weak reaction with HCI, 10Y 5/1 greenish gray -68.4 -68.4 20.0 -68.4 -68.4 -68.4 20.0 -68.4 -68.4 -1 USACE Lacksonville is the custodian for these original files. -68.4 -2 2 56.6 SP -3 Laboratory Testing Results SAMPLE SAMPLE LABORATORY ID 1 1/18 SP <		SHEET 2	signation VB-SJN ²	-		N	INSTALLAT	G (Cont. Sheet)			DP
St. Johns County Feasibility State Plane, FLE (U.S. Ft.) NAD83 NAVD88 LUCATION COORDINATES LELEATION TO OF DORING -48.4 Ft. -48.4 Ft. Let.v DEPTH g CLASSIFICATION OF MATERIALS net. gs 100 -65.6 17.2 Image: SAND, silty, mostly fine to medium-grained sand-sized quartz, some silt, few medium-grained sand-sized quartz, some silt, few medium-grained sand-sized quartz, some silt, few medium-grained sand-sized shell, weak reaction with HCI, 107 5/1 greenish gray -68.4 -68.4 -68.4 20.0 -67.2 18.8 NOTES: -68.4 -88.4 20.0 -66.8 -68.4 -68.4 -67.2 18.8 Image: SAND, silty, mostly fine to medium-grained sand-sized shell, weak reaction with HCI, 107 5/1 greenish gray -68.4 -68.4 20.0 -68.4 -68.4 -68.4 20.0 -68.4 -68.4 -68.4 20.0 -68.4 -68.4 -68.4 20.0 -68.4 -68.4 -68.4 20.0 -68.4 -68.4 -68.4 20.0 -68.4 -68.4 -68.4 2.5 Solis are field visually classified in accordance wit	EETS	OF 2 SHE	I						-00		
LEVATION COORDINATES X = 598,152 Y = 2.067,618 -48.4 FL LEV. DEFTH g CLASSIFICATION OF MATERIALS RCC g ROD SE REMARKS g -65.6 17.2 SAND, silty, mostly fine to medium-grained sand-sized quartz, some silt, few medium-grained sand-sized shell, weak reaction with HCI, 10Y 5/1 greenish gray (SM) ROD REAL ROD SE REMARKS g -68.4 20.0 NOTES: -68.4 -68.4 -68.4 -88.4 20.0 NOTES: -68.4 -68.4 -88.4 20.0 -67.2 Is -68.4 -68.4 20.0 -68.4 -68.4 -68.4 20.0 -68.4 -68.4 -68.4 20.0 -68.4 -68.4 -68.4 20.0 -68.4 -68.4 -68.4 20.0 -68.4 -68.4 -68.4 20.0 -68.4 -68.4 -68.4 20.0 -68.4 -68.4 -68.4 -0.16.5 -1.26.5 -68.4 -68.4 -0.16.5 -1.26.5 -68.4 -1.01.5		1	1					popibility			
X = 598,152 Y = 2.067,618 -48.4 Ft. ELEV. DEPTH 93 CLASSIFICATION OF MATERIALS REC. 528 P09 REMARKS 521 -65.6 17.2 Image: SAND, silty, mostly fine to medium-grained sand-sized quartz, some silt, few reaction with HCl, 10Y 5/1 greenish gray (SM) Image: SAND, silty, mostly fine to medium-grained sand-sized shard-sized quartz, some silt, few reaction with HCl, 10Y 5/1 greenish gray (SM) -68.4 -67.2 18.8 Image: SAND, Silty, mostly fine to custodian for these original files. Image: SAND, Silty, mostly fine to medium-grained sand-sized shard-sized shard-		I NAVDoo	I NADOS								
elev. DEPTH g CLASSIFICATION OF MATERIALS Rec Egg Ref Egg Ref< Egg Ref Egg Ref< Egg Ref Egg Ref< Egg Ref Egg Ref< Egg Ref Egg Egg				NG	BORIN						
-65.6 17.2 SAND, silty, mostly fine to medium-grained sand-sized quartz, some silt, few medium-grained sand-sized shell, weak reaction with HCI, 10Y 5/1 greenish gray (SM) -68.4 -67.2 18.8 NOTES: (SM) -68.4 -68.4 20.0 -68.4 -88.4 20.0 -68.4 -88.4 20.0 -68.4 -88.4 20.0 -68.4 -88.4 20.0 -68.4 -88.4 20.0 -68.4 -88.4 20.0 -68.4 -88.4 20.0 -68.4 -88.4 20.0 -68.4 -88.4 20.0 -68.4 -88.4 20.0 -68.4 -88.4 20.0 -68.4 -88.4 20.0 -68.4 -88.4 20.0 -68.4 -88.4 20.0 -68.4 -88.4 20.0 -68.4 -1 USACE Jacksonville is the custodian for these original files. -68.4 -1 USACE Jacksonville is the custodian for these original files. -68.4 -1 1.5/1.8 SP* -2 5.06.8 SP* -3 6.5/6.8 SP* -4 8.0/8.3 SP* -4	N-VALUE	DWS/ FT.	REMARK	P		× OR					
-67.2 18.8 SAMD, silty, mostly fine to medium-grained sand-sized shell, weak reaction with HCI, 10Y 5/1 greenish gray -67.2 18.8 Generation with HCI, 10Y 5/1 greenish gray -68.4 20.0 -68.4 -68.4 -68.4 -68.4 -68.4 20.0 -68.4 -68.4 -68.4 -68.4 NOTES: 1. USACE Jacksonville is the custodian for these original files. 2. Soils are field visually classified in accordance with the Unified Soils Classification System. 3. Laboratory Testing Results	7-N			'					Ĕ		
-67.2 18.8 SAND, silty, mostly fine to medium-grained sand-sized shell, weak reaction with HCI, 10Y 5/1 greenish gray -67.2 18.8 -68.4 -68.4 20.0 -68.4 -68.4 20.0 -68.4 NOTES: 1. USACE Jacksonville is the custodian for these original files. -68.4 2. Soils are field visually classified in accordance with the Unified Soils Classification System. 3. Laboratory Testing Results 3. Laboratory Testing Results SAMPLE LABORATORY ID DEPTH CLASSIFICATION 1 1 1.5/1.8 SP* 2 4.0/8.3 SP* 4 8.0/8.3 SP* *Lab visual classification based on gradation curve 4. Additional Laboratory Testing 1 Percent Visual Shell 1 2 Percent Visual Shell 1									III III III	17.0	65.6
-68.4 20.0 -68.4 -68.4 20.0 -68.4 NOTES: 1. USACE Jacksonville is the custodian for these original files. Abbreviations: 2. Soils are field visually classified in accordance with the Unified Soils Classification System. 3. Laboratory Testing Results 3. Laboratory Testing Results SAMPLE SAMPLE LABORATORY ID DEPTH CLASSIFICATION 1.5/1.8 SP* 2. 4.0/4.3 SP* 4. 8.0/8.3 SP* 4. 8.0/8.3 SP* 4. 8.0/8.3 SP* *Lab visual classification based on gradation curve 4. Additional Laboratory Testing 1 1 Percent Visual Shell 2 Percent Visual Shell							eak	sand-sized quartz, some silt, few medium-grained sand-sized shell, we reaction with HCI, 10Y 5/1 greenish		17.2	-03.0
NOTES: Abbreviations: 1. USACE Jacksonville is the custodian for these original files. Abbreviations: 2. Soils are field visually classified in accordance with the Unified Soils Classification System. Image: Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE ID DEPTH CLASSIFICATION 1 1.5/1.8 SP* 2 4.0/4.3 SP* 3 6.5/6.8 SP* 4 8.0/8.3 SP* *Lab visual classification based on gradation curve Image: Curve 4. Additional Laboratory Testing Image: Percent Visual Shell 3 Percent Visual Shell Servent Visual Shell								(SM)	ŢţŢţ	18.8	-67.2
1. USACE Jacksonville is the custodian for these original files. 2. Soils are field visually classified in accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABORATORY ID DEPTH CLASSIFICATION 1 1.5/1.8 2 4.0/4.3 3 6.5/6.8 4 8.0/8.3 8 SP* *Lab visual classification based on gradation curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell				-68.4						20.0	-68.4
these original files. 2. Soils are field visually classified in accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABORATORY ID DEPTH CLASSIFICATION 1 1.5/1.8 2 4.0/4.3 3 6.5/6.8 4 8.0/8.3 SP* *Lab visual classification based on gradation curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell			eviations:	Abbr			T	NOTES:			
accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABORATORY ID DEPTH 1 1.5/1.8 2 4.0/4.3 3 6.5/6.8 4 8.0/8.3 SP* 4 8.0/8.3 4 8.0/8.3 SP* 4 Aloratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell							dian for	 USACE Jacksonville is the custor these original files. 			
3. Laboratory Testing Results SAMPLE SAMPLE LABORATORY ID DEPTH CLASSIFICATION 1 1.5/1.8 SP* 2 4.0/4.3 SP* 3 6.5/6.8 SP* 4 8.0/8.3 SP* *Lab visual classification based on gradation curve 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell							ו ו	accordance with the Unified Soils			
ID DEPTH CLASSIFICATION 1 1.5/1.8 SP* 2 4.0/4.3 SP* 3 6.5/6.8 SP* 4 8.0/8.3 SP* *Lab visual classification based on gradation curve * 4. Additional Laboratory Testing 1 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell											
2 4.0/4.3 SP* 3 6.5/6.8 SP* 4 8.0/8.3 SP* *Lab visual classification based on gradation curve * 4. Additional Laboratory Testing * 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell							FORY ATION				
curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell								2 4.0/4.3 SP* 3 6.5/6.8 SP*			
1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell							radation				
2 Percent Visual Shell 3 Percent Visual Shell								4. Additional Laboratory Testing			
								2 Percent Visual Shell3 Percent Visual Shell			

			DIVISIO	<u></u>		INS	FALLAT		ig Designatio	JII VD-SJINIS	SHEET 1	
DRI	LLING	LOG		uth Atlantic			acksor		District		OF 2 SI	
1. PRO	JECT		A			9. :	SIZE AN	D ТҮР	EOFBIT S	See Remarks	•	
S	St. Johns C	county	Feasibility			10.	COOR	DINATE	SYSTEM/DATU	M HORIZONTAL	L VERTICAL	
									ne, FLE (U.S. F		NAVD	38
	ING DESIG		1	LOCATION COOR		11.	MANU	FACTU	RER'S DESIGNAT			
	/B-SJN15-		<u> </u>	,	Y = 2,068,941							
				1	NTRACTOR FILE NO. 6738-15-5453	12.	TOTAL	SAMP	LES	DISTURBED		D (UD)
	FORDS OF ER	0	rs - CESAJ		0730-10-0403					5	0	
						<u> </u>	-	-	ER CORE BOXES	•		
. DIRI	ECTION OF	BORIN	G	DEG. FROM	BEARING	14.	ELEVA		ROUND WATER			
	VERTICAL INCLINED			VERTICAL		15.	DATE	BORIN	3	STARTED 04-09-15	COMPLET 04-09-	
5. THIO	CKNESS OF	OVERE	JURDEN	N/A		16.	ELEVA		OP OF BORING	-41.6 Ft.		
. DEP	TH DRILLEI	о імто	ROCK	N/A		17.	TOTAL	RECO	VERY FOR BORI	NG 100 %		
	AL DEPTH			0.0 Ft.		18.	SIGNA	TURE /	AND TITLE OF IN	SPECTOR		
5. 101			20	J.U Fl.		L	,	-	1			
ELEV.	DEPTH	LEGEND	CI	LASSIFICATION O	F MATERIALS	R	% C. Solution	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
-41.6	0.0					Τ						
-41.0	0.0		SAND, p	oorly-graded, mo	ostly fine to			+	1			
	ŀ	.∵ .	medium-	grained sand-siz	ed quartz, little fine	;						
	-				sized shell, strong /1 light gray (SP)							
	-	•••••	reaction	with hol, 2.51 //	Tilgini gray (SF)							
	È											
	-											
	-	•••••							-44.6			
	-	····		4.6 Ft., little medi	ium-grained		1					
	-	••••	sand-size	ed shell								
	-											
	-											
	E .	••••										
	-	$[\cdot]$										
	-											
	-								-47.6			
	-	•••••	∽At El47	7.6 Ft., trace silt			2	-				
	5											
	-											
10.4	7.0	$ \cdots $										
-49.4	_ 7.8	┨╌╌┠	SAND. nr	oorly-graded, mo	ostly fine to							
-50.1	8.5	$[\cdots]$	medium-g	grained sand-siz	ed shell, some fine							
		1.∷.ľ		m-grained sand- light brownish gr								
	┝	$ \cdots $		oorly-graded, mc								
	F	: : k	medium-	grained sand-siz	ed quartz, some	F	<u> </u>	-	-51.1			
	<u>L</u>	$\left[\cdots \right]$		edium-grained sa	and-sized shell		3	-1				
	ŀ	$ \cdots $	(SP) -At El50	0.9 Ft., mostly fin	e-arained							
	È	$ \cdot \cdot \cdot $	sand-size	ed quartz	U							
	-			1.1 Ft., few mediu	um-grained							
	F		sand-size	ed snell 1.6 Ft., mostly fin	ie to							
	F	$ \cdot \cdot \cdot $			ed quartz, little fine	,						
	F		to mediur	m-grained sand-					-54.1			
	ŀ	[:∵:[2.5Y 7/1	light gray 3.9 Ft., mostly fin	o grainod	\vdash	4	-	-34.1			
	F			ed quartz, little m				1				
	Ł	.∵.h	sand-size	ed shell, weak re	eaction with HCl,							
	ŀ	$ \cdots $	2.5Y 6/2	light brownish gr	ay				-55.6			
	F	li ∴ h		4.9 Ft., 2.5Y 5/1 (5.6 Ft., few mediu	gray um-grained		5	-	00.0			1
			, LIUU									
	F		sand-size		ann grannoù			1				

SAJ FORM 1836 JUN 02

		G (Cont. Sheet)	INSTALLA			Borin			SHEET 2	
			Jackso				·····		OF 2 \$	HEETS
ROJECT St. Johns C	Cunty Fe	easibility	COORDIN State F						VERTICAL NAVD88	
			ELEVATIO				· · ·	500	I NAVBOO	
X = 600,992			-41.6 F				-			
ELEV. DEPI	LEGEND	CLASSIFICATION OF MATERIA	ALS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
<u>-56.8</u> <u>15.2</u> -58.4 16.8		SAND, poorly-graded with silt, mos medium-grained sand-sized quartz, fine to medium-grained sand-sized silt, strong reaction with HCl, 2.5Y (brownish gray (SP-SM)	, some shell, few							
		SAND, silty, mostly fine-grained sa quartz, little fine to medium-grained sand-sized shell, little silt, weak rea HCl, 10Y 5/1 greenish gray (SM)	1							
-61.6 20.0				<u> </u>			-61.6			
		NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH 1 3.0/3.3 2 6.0/6.3 3 9.5/9.8 4 12.5/12.8 5 14.0/14.3 *Lab visual classification based on curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell 7 Percent Visual Shell	in ATORY CATION 				Abbreviations:			

			DIVISIO	N		INS	TAL			y Designatio		SHEET 1	
DRI	LLING	LOG		h Atlantic						istrict		OF 2 SH	EETS
. PRO	JECT					-					ee Remarks		
S	St. Johns C	ounty F	easibility			10.	co	ORDI	NATE	SYSTEM/DATU	HORIZONTAL	VERTICAL	
										ne, FLE (U.S. F		NAVD8	8
	ING DESIG		1			11.	MA	NUF	сти	RER'S DESIGNAT			
	B-SJN15-	-			Y = 2,068,804 NTRACTOR FILE NO.							MANUAL HAN	
	Corps of En		- CESAJ		6738-15-5453	12.	то	TAL S	SAMPI	LES	5	0	(02)
	E OF DRILL		020/10			13.	то	TAL I	UMB	ER CORE BOXE	-		
										ROUND WATER			
	ECTION OF	BORING		DEG. FROM VERTICAL	BEARING	<u> </u>					STARTED	COMPLETE	D
	INCLINED					15.	DA	TE B	DRING	6	04-09-15	04-09-1	
тніс	CKNESS OF	OVERBL	JRDEN	N/A	1	16.	ELI	EVAT		OP OF BORING	-43.0 Ft.	•	
						┣				VERY FOR BORI			
. DEP	TH DRILLED	D INTO R	OCK	N/A		18.				ND TITLE OF IN			
тот	AL DEPTH (OF BORI	NG 20.	.0 Ft.				,					
ELEV.	DEPTH	LEGEND	CL	ASSIFICATION C	OF MATERIALS	R	ес.	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
10.0													
43.0	0.0		SAND. po	orly-graded, m	ostlv fine to	_							
	-		medium-g	rained sand-siz	zed quartz, little fine	;							
	-				sized shell, trace Cl, 2.5Y 7/1 light								
	-		gray (SP)		oi, 2.01 // light								
	-				to coarse-grained								
	-		sand-size	d shell									
	-												
	-												
	-	l:∴k								-46.5			
	-		At EI46. sand-size	.5 Ft., little med d shell	lium-grained			_1_					
	-				light brownish gray								
	-												
	-												
	-												
	-												
	_												
	F	$ \cdot\cdot\cdot $								-50.0			
	F							2					
	-												
	-	$ \cdot \cdot \cdot $											
	-												
	-	$ \cdots ^{\sim}$	At El51.	.7 Ft., few medi	um-grained								
	L	$ \cdots $	sand-size	u snell									
	-	[∵.:]											
	F									-53.5			
	F	$ \cdots $				⊢		3		-00.0			
	-												
	F												
	<u>-</u>												
	-				e to coarse-grained reaction with HCl,								
	È	• • •	2.5Y 6/1 c	gray									
	<u> </u>	$1 \cdot \cdot \mathbf{k}$	At El55.	9 Ft., 1" sandy	silt seam,								
	F	:∴ \	2.5Y 5/1 g	gray	to medium-grained	┝		<u>_</u>		-56.5			
	-	:∵: ⁻	sand-size	d shell, few silt.	weak reaction with			4					
	F		HCI	,,									
	F	$ \cdot \cdot \cdot $								58.0			
		البيل								-58.0	Continued		I

DRII	INSTALLA						SHEET				
		(G (Cont. Sheet)	Jackso					I	I	SHEETS
ROJECT		ty Ea	acibility	COORDINA State I					HORIZONTAL NAD83	VERTICAL NAVD88	
	hns Coun			State F					I NAD83	I NAVD88	
	N COORDI 99,984			-43.0 F		UF B	OKIN	5			
		GEND				PLER	RQD			NS/	LUE
ELEV.	DEPTH	LEGE	CLASSIFICATION OF MATERIA		RÉC.	S/B	RQD OR UD		REMAR	ks old	N-VALUE
-59.7	16.7	· · · · · · · · · · · · · · · · · · ·	At El58.0 Ft., few medium-graine sand-sized shell From El58.3 to -59.7 Ft., strong n with HCl, intermittent shell seams			5	-				
-33.7	10.7		SAND, silty, mostly fine-grained sa quartz, little silt, few fine-grained sa shell, weak reaction with HCI, 2.5Y (SM)	nd-sized 5/1 gray							
-63.0	20.0		At EI62.3 Ft., little sand to gravel- shell, strong reaction with HCl	sized				-63.0			
			NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFI 1 3.5/3.8 SF 2 7.0/7.3 SF 3 10.5/10.8 SF 4 13.5/13.8 SF 5 15.0/15.3 SF *Lab visual classification based on curve 4. Additional Laboratory Testing 1 Percent Carbonate 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 5 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 5 Percent Visual Shell 5 Percent Visual Shell 7 Percent Visual Shell	in ATORY CATION 				Abbrev	viations:		

							g Designation VB-SJN15-2	26	
DRILLING	LOG	DIVISION			LATIO			SHEET 1	
I. PROJECT		South Atlantic	_				istrict	OF 2 SH	IEETS
		ioasihility					E OF BIT See Remarks SYSTEM/DATUM HORIZONTAL	VERTICAL	
St. Johns C		casioliity	'0.						
2. BORING DESIG	NATION	LOCATION COORDINATES	11.						
VB-SJN15-		X = 598,993 Y = 2,068,690						MANUAL HAN	
3. DRILLING AGE	NCY	CONTRACTOR FILE NO	0. 40					INDISTURBED	D (UD)
Corps of Er		s - CESAJ 6738-15-5453	12.	. 10		SAMP	LES 4	0	
4. NAME OF DRILI	LER		13.	. то	TAL I	NUMB	ER CORE BOXES ()		
5. DIRECTION OF	BORING	DEG. FROM BEARING	- 14.	. EL	EVAT	ION G	ROUND WATER		
VERTICAL	Bonne	DEG. FROM BEARING VERTICAL	15.	. D4		ORING	STARTED	COMPLETE	
			_				<u>i</u> 04-10-15	04-10-1	15
6. THICKNESS OF	OVERB						OP OF BORING -45.9 Ft.		
7. DEPTH DRILLE	D INTO I	ROCK N/A	17.				AND TITLE OF INSPECTOR		
8. TOTAL DEPTH	OF BOR	NG 20.0 Ft.			,				
ELEV. DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	1	RÉC.	BOX OR SAMPLE	RQD OR UD	REMARKS	BLOWS/ 1 FT.	N-VALUE
-45.9 0.0									
		SAND, poorly-graded, mostly fine to							
E		medium-grained sand-sized quartz, little medium-grained sand-sized shell, strong							
F		reaction with HCl, 2.5Y 7/2 light gray (SP)							
Ę		, , ,							
Ł									
F									
Ę							48.0		
-			ŀ		1		-48.9		
F	••••				<u> </u>	1			
E_									
E									
-									-
F									
È							54.0		
-	l∵ŀ	-At El51.9 Ft., trace silt	ŀ		2		-51.9		
Ē					-	1			
E	$ \cdots $								
E									
F									
F									
Ę	`	-At El54.2 Ft., 2.5Y 6/2 light brownish gra	iy				54 0		
F	:.:ŀ	-At El54.9 Ft., mostly fine-grained	ŀ		3		-54.9		┼─┨
F		sand-sized quartz, little fine to			Ĕ	1			
-56.1 - 10.2		medium-grained sand-sized shell							
		SAND, poorly-graded with silt, mostly					-56.4		
ŀ	 · 	fine-grained sand-sized quartz, little medium-grained sand-sized shell, few silt,			4				
F		strong reaction with HCI, 10Y 5/1 greenish							
Ę		gray (SP-SM)							
F		At EL -57.4 Ft., little fine to medium-graine sand-sized shell	u						
г									
F									
-									
- - - -									1 1
-60.5 - 14.6									

DD		100	G (Cont. Sheet)	INSTALLA	TION			<u> </u>			SHEET	2	٦
	ILLING			Jackso	nville	Distr	ict				OF 2	SHEET	s
PROJE				COORDINA					HORIZONTAL	1	RTICAL		
	lohns Coun			State F	lane,	FLE	(U.S.	Ft.)	NAD83	<u> </u>	NAVD88		
	ON COORDI			ELEVATIO		OF B	ORIN	G					
X = 1	598,993	1	,068,690	-45.9 F	t.								
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIAL	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMARKS	5	BLOWS/ 1 FT.	N-VALUE	- -1
-65.9	20.0							-65.9					ŧ
-03.9	20.0		NOTES: 1. USACE Jacksonville is the custo these original files. 2. Soils are field visually classified i accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing 1 3.0/3.3 SP ² 6.0/6.3 3 9.0/9.3 4 10.5/10.8 SP-Si *Lab visual classification based on generative *Lab visual classification testing 1 Percent Visual Shell 2 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 4 Percent Visual Shell 4 Percent Visual Shell 4 Percent Visual Shell	n TORY CATION				-os.9 Abbrevi	ations:				

			DIVISIO	N		INS	TALLAT		ig Designatio		SHEET 1	
DRI	LLING	LOG		h Atlantic			acksor		District		OF 2 SH	IEETS
1. PRO	JECT			-						ee Remarks		
S	t. Johns C	ounty F	easibility			10.	COOR	DINATE	SYSTEM/DATU	HORIZONTAL	VERTICAL	
							Sta	te Pla	ne, FLE (U.S. F	t.) NAD83	NAVD8	38
2. BOR	ING DESIGN	NATION	I	LOCATION COOR	DINATES	11.	MANU	FACTU	RER'S DESIGNAT] АUTO НАММ	IR
	B-SJN15-2				Y = 2,068,637					<u></u>	MANUAL HAN	
	LING AGEN		05041	1	NTRACTOR FILE NO.	12.	τοται	SAMP	LES	DISTURBED	UNDISTURBED) (UD)
	orps of En	0	s - CESAJ	6	6738-15-5453	<u> </u>				6	0	
	E OF DRILL	EK				13.	ΤΟΤΑΙ		ER CORE BOXES	5 0		
. DIRE	CTION OF I	BORING		DEG. FROM	BEARING	14.	ELEVA		ROUND WATER			
	VERTICAL			VERTICAL		15.	DATE	BORIN	G	STARTED	COMPLETE	
	INCLINED								-	04-10-15	04-10-1	15
6. THIC	KNESS OF	OVERB	URDEN	N/A		16.	ELEVA		OP OF BORING	-45.9 Ft.		
7. DEP [.]	TH DRILLED			N/A		17.	ΤΟΤΑΙ	RECO	VERY FOR BORI	NG 73 %		
						18.	SIGNA	TURE	AND TITLE OF IN	SPECTOR		
з. тот.	AL DEPTH C	OF BOR	NG 20.	.0 Ft.			,					
ELEV.	DEPTH	LEGEND	CL	ASSIFICATION O	F MATERIALS	R	%EC. XOB			REMARKS	BLOWS/ 1 FT.	N-VALUE
. –						\top		1				
-45.9	0.0		SAND no	orly-graded, mo	setly fine to			_	4			
	-		medium-g	rained sand-siz	ed quartz, little							
	-	····.		rained sand-siz								
	-		reaction w	/ith HCl, 2.5Y 6/	n gray (SP)							
	_	· · · ·										
	-					L			-48.4			
	-						1	_				
	-	·										
	-											
	-											
	-											
	-	· · · ·							-50.9			
	-						2					
	-											
	-											
	-											
	_	.∵. `	-At El52.	5 Ft., mostly fin	e gravel-sized				-52.9			
	-	$ \cdots $	quartz, fev	w medium-grain e silt, 2.5Y 5/1 g	led sand-sized		3					
	_			c ant, 2.01 0/1 (Jiay							
	-	$ \cdot \cdot \cdot $										
	-	$ \cdots $							-54.9			
	-	l⊡ľ	-At El54.	9 Ft., trace she	II		4		-			
	_	. [.]										
		$ \cdots $										
	-	[···]										
	_	[⊡]							-56.9			
	-	l∷∖ľ	-At El56.	9 Ft., few medi	um-grained		5					
	_	·.∵.	sand-sized	d shell								
	-											
	-											
-58.9	- 13.0	$ \cdots $							-58.9			
55.8	- 10.0		SAND, po	orly-graded with	n silt, mostly	+	6	1	-30.3			
	-	 .	fine-graine	ed sand-sized q	uartz, few			1				
-60.0	- 14.1	ŀHh		rained sand-siz tion with HCl, 2	ed shell, few silt,							
-60.4	14.5		(SP-SM)		• •	/						
	_		From El	59.8 to -60.0 Ft	., silty very shelly	//						
		I II	1			111						1

DRILI		LOC	G (Cont. Sheet)	INSTALLA		D ¹	. ,			SHEET	
PROJECT				Jackso COORDIN						OF 2	SHEETS
St. John	ns Count	v Fea	asibility	State					NAD83	NAVD88	
				ELEVATIO				,			
X = 597,	,954	Y = 2	,068,637	-45.9	₹t.						
ELEV. D	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMAR	BLOWS/ 1 FT.	N-VALUE
			Sand seam SAND, clayey, mostly fine-grained sand-sized quartz, some clay, little gravel-sized shell, weak reaction wi 5G 4/1 dark greenish gray (SC)	sand to th HCl,							
-65.9 2	20.0							-65.9			
			NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIC 1 2.5/2.8 SP 2 5.0/5.3 SP 3 7.0/7.3 SP 4 9.0/9.3 SP 5 11.0/11.3 SP 6 13.0/13.3 SP-S *Lab visual classification based on g curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell 6 Percent Visual Shell 7 Percent Visual Shell 8 Percent Visual Shell 9 Pe	TORY CATION * * * * *				Abbrev	iations:		

			DIVISIO	N			STAL			y Designati	OII VE-SJIN	10-2	SHEET 1	
DRI	LLING	LOG		th Atlantic						istrict			OF 2 SH	EETS
1. PRO	JECT										See Remarks			
5	St. Johns C	County	Feasibility			10.	CO	ORD	NATE	SYSTEM/DATU	M HORIZONT	AL	VERTICAL	
										ne, FLE (U.S. I	,		NAVD8	
	B-SJN15-		4		FORDINATES 59 Y = $2,069,792$	11.	MA	NUF	ACTU	RER'S DESIGNA	TION OF DRILL	_	AUTO HAMME MANUAL HAM	
	LING AGE	-	i		CONTRACTOR FILE NO.						DISTURBED	_	NDISTURBED	
C	Corps of Er	nginee	rs - CESAJ		6738-15-5453	12.	то	TAL	SAMP	LES	6	į	0	` ´
4. NAM	IE OF DRILI	LER		·		13.	то	TAL	NUMB	ER CORE BOXE	s 0			
						14.	ELI	EVAT	ION G	ROUND WATER	1			
\bowtie	ECTION OF VERTICAL INCLINED	BORIN	G	DEG. FROM VERTICAL	BEARING	15.	DA	TE B	ORING	•	STARTED	5	COMPLETE 04-09-1	
	CKNESS OF	OVER	BURDEN	N/A		16.	EL	EVAT	ION T	OP OF BORING		0		0
7. DEP	TH DRILLE	р імто	ROCK	N/A		17.	то	TAL	RECO	ERY FOR BOR	ING 83 %			
8. ТОТ	AL DEPTH	OF BOF	NING 20).0 Ft.		- 18.	SIG	€NAT	URE A	ND TITLE OF I	NSPECTOR			
ELEV.	DEPTH	LEGEND	CI	ASSIFICATIO	N OF MATERIALS	-	RÉC.	BOX OR SAMPLE	RQD OR UD		REMARK	s	BLOWS/ 1 FT.	N-VALUE
-44.9	0.0													
-44.3		.	SAND, po	oorly-graded,	mostly fine to									
	-		medium-	grained sand-	-sized quartz, little -sized shell, trace silt,									
	-	••••			Cl, 2.5Y 7/2 light gray									
	-		(SP)											
	-									-46.9				
	F	••••				Γ		1						ŀ
	<u> </u>													
	<u> </u>													
	Ę													
	-													
	-													
	Ľ									-49.9				
	 -					F		2		-10.0				
	-			-50.3 to -50.7	' Ft., very shelly sand									-
	–	••••	seam											
	-													
	-													
	L													
	┝	····				⊦		3		-52.9				┝──╂
	-													
	-													
	ŀ	····												
	F													
	F													t
	ŀ		∽At El55	.2 Ft., 2.5Y 5	/1 gray									
	F			.9 Ft., mostly	fine grained	┝		4		-55.9				├── ┠
	t		sand-size	ed quartz. few	/ medium-grained			4						E
	ŀ	.∵.	sand-size	ed shell										
	F		∽At El57	.0 Ft., little m	edium-grained					-57 4				
	Ł		sand-size	ed shell		┢		5		-57.4				+
	F								1					
	t													ł
	F	$ \cdots $								-58.9				
	F	[]	From El.	-59.0 to -59.2	2 Ft., shell seam	F		6		-				
	E	 												
		1	\								(Continue)			

DRI	LLING	LOG	6 (Cont. Sheet)	INSTALL					SHEET 2	
PROJEC			, ,	Jacks COORDIN					OF 2 S	HEETS
	ohns Cour	itv Fea	asibility		Plane,			1	NAVD88	
	ON COORDI			ELEVATI						
X = 5	599,859	Y = 2,	069,792	-44.9	Ft.					
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERI	ALS	RÉC.	BOX OR SAMPLE	RQD OR UD	REMA	RKS /S.L.J. RKS 018	N-VALUE
-61.4	16.5	· · · · · · · · · · · · ·	At El59.8 Ft., few medium-grain sand-sized shell, weak reaction wi	ed th HCl						
-64.9	20.0				_			-64.9 Abbreviations:		
			ID DEPTH CLASSIF 1 2.0/2.3 S 2 5.0/5.3 S 3 8.0/8.3 S 4 11.0/11.3 S 5 12.5/12.8 S	d in ATORY ICATION P* P* P* P* P* P* P* P* P*						

			DIVISION			INS	TALL			g Designatio		SHEET	1
DRI	LLING	LOG	South At	lantic						istrict		OF 2 3	
1. PRO	JECT		•			9.	SIZE	AND	ТҮР	EOFBIT S	ee Remarks	•	
5	St. Johns C	ounty	Feasibility			10.	CO	ORDI	NATE	SYSTEM/DATU	HORIZONTA	L VERTICA	.L
										ne, FLE (U.S. F	,	NAVI	
	ING DESIGI /B-SJN15-2		1	ATION COORD = 507 844	Y = 2,069,619	11.	MA	NUFA	CTUP	RER'S DESIGNAT			
		-	^	,	FRACTOR FILE NO.							UNDISTURB	
	Corps of En		s - CESAJ	67	738-15-5453	12.	то	TAL S	SAMPI	.ES	6	0	
4. NAN	IE OF DRILL	.ER				13.	то	TAL N	IUMB	ER CORE BOXES	5 0		
		BORIN		G. FROM	BEARING	14.	ELE	VAT	ION G	ROUND WATER			
\boxtimes	VERTICAL INCLINED	Donne		RTICAL		15.	DA	ГЕ ВС	ORING)	STARTED 04-09-15	COMPLE	
6. THI	CKNESS OF	OVERE	BURDEN N/A	A	•	16.	ELE	VAT	ION T	OP OF BORING	-45.9 Ft.	·	
7. DEP			ROCK N/A			17.	то	TAL F	RECO	/ERY FOR BORI	NG 100 %		
						18.	SIG	NAT	URE A	ND TITLE OF IN	SPECTOR		
8. ТОТ	AL DEPTH (OF BOR	ING 20.0 FI			L							
ELEV.	DEPTH	LEGEND	CLASS	IFICATION OF	MATERIALS	F	ŧĚC.	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
-45.9	0.0												
-45.9		<u></u>	SAND, poorly	-graded, mos	stly fine to	_	ŀ						
	-		medium-grain	ed sand-size	d quartz, little								
	-				d shell, trace silt, .5Y 7/2 light gray								
	Ł	$[\cdot \cdot \cdot]$	(SP)										
	F												
	-												
	F	$[\cdots]$											
	F					┝		1		-48.9			
							ŀ	1					
	-	••••											
	F												
		$[\cdot]$											
	F												
	-									-51.9			
	F	····					ŀ	2					
	F												
	-	$ \cdots $	Erom El 52 1	1 to 52.2 Et	von cholly cond								
	Ł	l∷∵i	seam	i iu -00.0 Fl.,	very shelly sand								
	 -	.···	^L At El53.3 Ft	., mostly fine	-grained	┝		3		-53.9			
	F	$ \cdots $	sand-sized qu	anz, 2.5Y 5/	2 grayish brown		ŀ	5					
	L	⊡ :											
	ŀ	. · · ·											
	F	l ∷t		to -55.7 Ft.,	very shelly sand					-55.9			
	F	[∷ ∷]	seam At El55.7 Ft	few mediu	m-grained	┢		4		-00.9			
	ŀ	. · · ·	sand-sized sh	ell, weak rea	ction with HCl		Ì						
	F												
	E	∷ ∷											
	ŀ	$ \cdots $	∽At El57.6 Ft	., mostlv fine	to					-57.9			
	F	$ \cdots $	medium-grain	ed sand-size	d quartz, little	F		5					
	Ł	l:∵:L	medium to co	arse-grained	sand-sized shell, .5Y 7/1 light gray		ſ						
	┝	[.∵.]	At El58.6 Ft	, few fine-gr	ained sand-sized								
	È i	$ \cdots $	shell, 2.5Y 5/1										
	ŀ	····								-59.9			
	F	[]	∽At El59.9 Ft		-grained	F		6					
	t	$ \cdot \cdot \cdot $	sand-sized qu	altz									
		1									Continue		

DRI	LLING	LOC	G (Cont. Sheet)	Jackso		Dict	ict				SHEET 2	
PROJEC		-	. /					um i	IORIZONTAL	1	OF 2 S	NEEIS
	ohns Cour	nty Fe	asibility	State F				1	NAD83		NAVD88	
	ON COORD		•	ELEVATIO						•		
X = 5	597,844	Y = 2	,069,619	-45.9 F	t.							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		RE	MARKS	BLOWS/ 1 FT.	N-VALUE
-61.7	15.8		From El61.2 to -61.7 Ft., shell sea									
-64.1	18.2		SILT, inorganic-H, little fine-grained sand-sized quartz, little sand to grav shell, weak reaction with HCl, N 5/ g (MH) At El62.4 Ft., some fine-grained sand-sized quartz, 10Y 5/1 greenish At El63.3 Ft., little fine to medium sand-sized shell SAND, clayey, mostly fine-grained	vel-sized gray n gray -grained	_							
-65.1	19.2		sand-sized quartz, little clay, trace s weak reaction with HCl, 5G 4/1 dark gray (SC)	c greenish								
-65.9	20.0		SAND, poorly-graded with clay, mos fine-grained sand-sized quartz, few weak reaction with HCl, 2.5Y 5/2 gra	clay,				-65.9				
			brown (SP-SC) NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE ID DEPTH CLASSIFIC 1 3.0/3.3 SP 2 6.0/6.3 3 8.0/8.3 2 6.0/6.3 3 8.0/8.3 4 10.0/10.3 5 12.0/12.3 6 14.0/14.3 SP 6 4 Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell 6 Percent Visual Shell 6 Percent Visual Shell 6 Percent Visual Shell	in TORY CATION * * * * * *				Abbreviatio				
	ORM 183											

						E	orin	g Designation VB-SJN15-3	30	
DR	LLING	LOG	DIVISION			LATIO			SHEET 1	
. PRO			South Atlantic	_					OF 2 SI	IEETS
		o						E OF BIT See Remarks SYSTEM/DATUM HORIZONTAL	VERTICAL	
5	St. Johns Co	ounty	reasibility	10.					1	
2. 805	ING DESIGN		LOCATION COORDINATES	11				ne, FLE (U.S. Ft.) NAD83		
	/B-SJN15-3		X = 600,774 $Y = 2,070,984$	1					MANUAL HAN	
	LLING AGEN		CONTRACTOR FILE NO.		_				INDISTURBE	
C	Corps of En	gineer	s - CESAJ 6738-15-5453	12.	то	DTAL S	SAMP	L ES 6	0	
4. NAN	IE OF DRILL	ER		13.	то	TAL I	NUMB	ER CORE BOXES ()		
			G DEG. FROM BEARING	14.	EL	EVAT	ION G	ROUND WATER		
	ECTION OF E	BORING	G DEG. FROM BEARING VERTICAL					STARTED	COMPLET	D
	INCLINED			15.	DA	TE B	ORING	04-09-15	04-09-	15
6. THI	CKNESS OF	OVERE	BURDEN N/A	16.	EL	.EVAT		OP OF BORING -45.1 Ft.		
	TH DRILLED		ROCK N/A	17.	то		RECO	VERY FOR BORING 98 %		
				18.	SI	GNAT	URE A	AND TITLE OF INSPECTOR		
8. ТОТ	AL DEPTH C	OF BOR	20.0 Ft.			,				
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS		RÉC.	BOX OR SAMPLE	RQD OR UD	REMARKS	BLOWS/ 1 FT.	N-VALUE
-45.1	0.0	$\left \cdots \right $	SAND, poorly-graded, mostly fine to	_		<u> </u>				
	F	[…]	medium-grained sand-sized guartz, little							
	È.	ŀ∷l	medium-grained sand-sized shell, strong reaction with HCI, 2.5Y 7/1 light gray (SP)							[
	F	<u> </u> ∙∙∙•	(SF)							
	F									
	F	ŀ∷-l								[
	E	<u> </u>								
	F			-		1		-48.1		
	-					<u> </u>				
	-	$[\cdot \cdot \cdot]$								E
	-									
	-									
	-									
	E									
	-	┞┄┄┝	∽At El51.1 Ft., trace silt	┝		2		-51.1		
	È.					<u> </u>				
	-									E
	ŀ	[···]								
	F									
	F	·.∵								
	Ł	[:::]								E
	 	ŀ⊡ł	∽At El54.1 Ft., mostly fine-grained	┝		3		-54.1		┼──┠
	F	[⊡]	sand-sized quartz			١	1			
	È.									[
	Ł	·…								
	ŀ	[⊡]								
	F	l∷t	∽At El56.1 Ft., 1" shell seam							
	E	[∵∵]								E
	 	[⊡]		┝		4		-57.1		┼─┣
	F	ŀ∷⊦l	NATEL 576 Et mostly find to			⊢				
	F	l∵∵h	At El57.6 Ft., mostly fine to medium-grained sand-sized quartz							E
	ŀ	[⊡]	At El57.9 Ft., 1" shell seam					-58.6		F
	F	∷	^L At El58.0 Ft., mostly fine-grained sand-sized quartz, few medium-grained	ľ		5				
	⊢	'.∵¦A	sand-sized shell, weak reaction with HCl,							E
	F									
	- - - 15.0	[:·:·]	2.5Y 6/1 gray At El59.0 Ft., 2" shell seam					-60.1		

DRILLING	LO	G (Cont. Sheet)	INSTALLA					SHEET 2	
			Jackso					OF 2 S	HEETS
ROJECT St. Johns Cou	ntv Fe	asibility	COORDINA State F				1	VERTICAL NAVD88	
OCATION COORD	-		ELEVATIO				· · ·	1111000	
X = 600,774			-45.1 F						
ELEV. DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD	REMA	RKS /SMO18	N-VALUE
	•	∖-At El59.2 Ft., 2" shell seam	/		6				-
-62.1 17.0		SAND, poorly-graded with silt, mos fine-grained sand-sized quartz, few medium-grained sand-sized shell, f strong reaction with HCI, 2.5Y 7/1 ii (SP-SM)	ew silt, ght gray						
		SAND, silty, mostly fine-grained sa quartz, little silt, little fine to mediun sand-sized shell, weak reaction with 10Y 5/1 greenish gray (SM) At El63.1 Ft., some sand to grave shell, strong reaction with HCI	n-grained n HCl,						
64.6 19.5				-					
65.1 20.0	+	NOTES:		\vdash			-65.1 Abbreviations:		
		 USACE Jacksonville is the custo these original files. Soils are field visually classified accordance with the Unified Soils Classification System. Laboratory Testing Results SAMPLE SAMPLE LABOR/ ID DEPTH CLASSIFI 1 3.0/3.3 SF 2 6.0/6.3 SF 3 9.0/9.3 SF 4 12.0/12.3 SF 5 13.5/13.8 SF 6 15.0/15.3 SP-S *Lab visual classification based on curve Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell 	in ATORY CATION 						

				1.000				g Designation			
DRI	LLING	LOG	DIVISION South Atlantic					listrict		SHEET 1 OF 2 SH	IFFTe
. PRO	JECT			_					emarks		12513
	St. Johns C	ountv F	easibility							VERTICAL	
		ounty i	odolomity					ne, FLE (U.S. Ft.)		NAVD	38
2. BOF		NATION	LOCATION COORDINATES	11.				RER'S DESIGNATION			
١	/B-SJN15-3	31	X = 598,732 Y = 2,070,721							MANUAL HAN	
	LLING AGEN		CONTRACTOR FILE NO.	12.	то	TAL	SAMPI	IFS	i	INDISTURBED	D (UD)
	Corps of En		- CESAJ 6738-15-5453	<u> </u>					5	0	
4. NAN	IE OF DRILL	ER		13.	то	TAL	NUMB	ER CORE BOXES	0		
5. DIR	ECTION OF	BORING	DEG. FROM BEARING	14.	ELI	EVAT	ION G	ROUND WATER			
\boxtimes	VERTICAL		VERTICAL	15	DA	TE B	ORING		STARTED	COMPLETE	ED
	INCLINED			10.					04-09-15	04-09-1	15
6. THI	CKNESS OF	OVERB	urden N/A	16.	ELI	EVAT	ION T	OP OF BORING -4	44.4 Ft.		
7. DEP	TH DRILLED	INTO R	ROCK N/A	17.	то	TAL	RECO	VERY FOR BORING	98 %		
				18.	SIG	GNAT	URE A	AND TITLE OF INSPEC	TOR		
з. тот	AL DEPTH C	JF BORI	NG 20.0 Ft.	1		,					
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS	R	еес.	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
-44.4	0.0	$\left\lfloor \cdot \cdot \right\rfloor$	SAND, poorly-graded, mostly fine to					4			
	F		medium-grained sand-sized quartz, little								
	Ł		medium-grained sand-sized shell, weak reaction with HCl, 2.5Y 7/1 light gray (SP)								
	F		(SF)								
	F										
	F										
	F	····									
	F			⊢		4		-47.4			
	t				ŀ	_1					
	Ł	⊡ :]									
	ŀ										
	F	$ \cdot \cdot \cdot $									
	F	∷ ∷									
	ŀ	$ \cdot\cdot\cdot $									
	F	l∷rk	-At EI50.4 Ft., little medium to	┝		0		-50.4			│
	t –		coarse-grained sand-sized shell			2					
	ŀ	$ \cdot \cdot \cdot $	~								
	F										
	F	[∷:ľ`	-At El51.8 Ft., 2.5Y 6/1 gray								
	F	$ \cdot \cdot \cdot $									
	ŀ										
	F	ŀ∷k	-At EI53.4 Ft., little medium-grained	⊢		3		-53.4			
	t i		sand-sized shell			3					
	Ł	[]^	From El54.0 to -54.3 Ft., sandy silt seam								
	ŀ	$ \cdot \cdot \cdot $									
	F										
	F										
	╞	$ \cdots $									
	F			F		4		-56.4			╞╴╏
	E				ŀ	4					
	╞	$ \cdots $									
	F							-57.9			
	F	l∵k	-At El57.9 Ft., few medium-grained	H		5		-57.8			
	L										
	-		sand-sized shell, 2.5Y 5/1 gray								
	- -	l∖	From El58.4 to -58.8 Ft., strong reaction with HCl, very shelly sand seam								

DRILL	ING L	OG	(Cont. Sheet)	INSTALLA			orin		SHEET	
PROJECT				Jackso COORDIN					OF 2 S	SHEETS
	ns County	Fea	sibility	State F					NAVD88	
OCATION O				ELEVATIO				, ,		
X = 598,	,732 Y	= 2,0	070,721	-44.4 F	Ŧ.					
ELEV. D	рертн	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD	REM/	ARKS 018	N-VALUE
-61.4 17	7.0		SAND, clayey, mostly fine-grained sand-sized quartz, some clay, few							
	<u>9.5</u>		coarse-grained sand-sized shell, we reaction with HCl, N 5/ gray (SC) At El63.5 Ft., occasional cemente fragments		~					
-64.4 20	0.0	_	NOTES:					-64.4 Abbreviations:		_
			 USACE Jacksonville is the custor these original files. Soils are field visually classified in accordance with the Unified Soils Classification System. Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIC 1 3.0/3.3 SP 2 6.0/6.3 SP 3 9.0/9.3 SP 4 12.0/12.3 SP 5 13.5/13.8 SP *Lab visual classification based on g curve Additional Laboratory Testing Percent Visual Shell Sertert Visual Shell Sertert Visual Shell Sertert Visual Shell Sertert Visual Shell Sertert Visual Shell Sertert Visual Shell Sertert Visual Shell Sertert Visual Shell Sertert Visual Shell Sertert Visual Shell Sertert Visual Shell Sertert Visual Shell Sertert Visual Shell 	TORY CATION						

			DIVISIO	N		INC	TALL			g Designatio			SHEET 1	
DRI	LLING	LOG		N Atlantic						istrict			OF 2 SH	IEETS
1. PRO	JECT										See Remarks			
S	st. Johns C	ounty F	easibility							SYSTEM/DATU			VERTICAL	
		-	-				S	State	Plar	ne, FLE (U.S. F	t.) NAD	83	NAVD8	38
	ING DESIG		1	LOCATION COOR		11.	MA	NUFA	CTU	RER'S DESIGNA	TION OF DRIL		А ОТО НАММ	
	/B-SJN15-3	-			Y = 2,071,859								MANUAL HAN	
	LING AGEN Corps of En			1	TRACTOR FILE NO. 738-15-5453	12.	тот	TAL S	SAMPI	ES	DISTURBED		UNDISTURBED	D (UD)
		0	- CLOAJ	i (100-10-0400	42	TOT	-		ER CORE BOXE		i	0	
						<u> </u>					-			
	ECTION OF	BORING		DEG. FROM	BEARING	14.	ELE	VAT	ION G	ROUND WATER				
	VERTICAL			VERTICAL		15.	DAT	ГЕ ВС	ORING	;	STARTE 04-0		COMPLETE	
	CKNESS OF	OVERBI		N/A		16.	E1 E	:VAT		OP OF BORING	-44.1 Ft.	5-15	04-00-	10
o. THK	SKNE33 OF	UVERBU				<u> </u>				/ERY FOR BORI		/		
7. DEP	TH DRILLED	D INTO R	оск М	N/A		17.				ND TITLE OF IN		0		
в. тот	AL DEPTH C	OF BORI	NG 20.	.0 Ft.										
ELEV.	DEPTH	LEGEND	CL	ASSIFICATION O	F MATERIALS	R	ес.	BOX OR SAMPLE	RQD OR UD		REMA	RKS	BLOWS/ 1 FT.	N-VALUE
-44.1	0.0	$\left \dots \right $	SAND no	orly-graded, mo	stly fine to		┝							
	Ę		medium-g	rained sand-siz	ed quartz, little									
	<u> </u>		medium-g	rained sand-siz	ed shell, weak									
	-		reaction w gray (SP)		2 light brownish									
	-		J J (OI)	,										
	┝													
	F	$ \cdot \cdot $												
	<u>-</u>					L				-47.1				
	-		At El47. sand-sized	1 Ft., mostly fin	e-grained	Γ	Ţ	1						
	F	$ \dots $	3a110-51280	u qualiz										
	<u>-</u>			0 Ft., little medi										
	F	[·…]	sand-size	u snell, strong r	eaction with HCI									
	–	$ \cdot \cdot \cdot $												
	-													
	F									-50.1				
	F			1 Ft., mostly fin				2						
	-		meaium-g	rained sand-siz	eu quartz									
	-													
	F	$ \cdot \cdot \cdot $												
	-													
	L													
	-	$ \cdots ^{\sim}$	From El	52.6 to -52.7 Ft	., sandy silt seam					-53.1				
	-			1 Ft., mostly fin		F		3						
	L			d quartz, few m d shell, trace sil	edium-grained t, weak reaction		ſ							
	–	$ \cdots $	with HCI	,	,	┝	+	4		-54.1				
	È			7 Ft., mostly fin			ŀ	-						
	<u>L</u>		medium-g medium-a	rained sand-siz rained sand-siz	ea quartz, little ed shell									
	-	$ \cdots $	discontinu	ie silt, 2.5Y 5/1	gray									
56 4	-	[⊡]`	At El55.	2 Ft., trace she	II					56 1				
-56.1	12.0		SAND, po	orly-graded with	n silt, mostly fine to	+	+	5		-56.1				
	F		medium-g	rained sand-siz	ed quartz, few		ŀ							
	-			rained sand-siz tion with HCl, 2	ed shell, few silt,									
	F		weak read (SP-SM)		.or or gray									
	F	[::]]	、 - ···/							-58.1				
	F	.·				┢	+	6		-00.1				
	-	 ·∶ 					ľ							
	-	<u> </u> .												
A 1 E/		-									(Cont			

				INSTALLA	TION	E	Sorin	g Designation VB-SJ		EET 2	
DR	ILLING	LO	G (Cont. Sheet)	Jackso		Distr	rict			2 SH	EETS
PROJEC	т			COORDIN	ATE S	YSTE	M/DAT	1	VERTIC/	AL	
	ohns Cou			State F					NAV	D88	
	ON COORD			ELEVATIO		OF E	BORIN	G			
X = :	599,657 I	1	2,071,859 I	-44.1 F	-t.					-	
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	ALS	RÉC.	BOX OR SAMPLE	RQD OR UD	REMAR	RS	BLOWS/ 1 FT.	N-VALUE
-62.1 -63.8 -64.1	18.0		At El61.6 Ft., some sand to grave shell CLAY, lean, little fine-grained sand quartz, trace shell, weak reaction w 5GY 4/1 dark greenish gray (CL) SAND, clayey, mostly fine-grained sand-sized quartz, little medium-gr sand-sized shell, little clay, weak re with HCl, 2.5Y 5/2 grayish brown (NOTES: 1. USACE Jacksonville is the cust these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABOR/ ID DEPTH CLASSIFI	el-sized -sized /ith HCl, ained aaction SC) odian for in				-64.1 Abbreviations:		BLO	N-V
			1 3.0/3.3 SF 2 6.0/6.3 SF 3 9.0/9.3 SF 4 10.0/10.3 SF 5 12.0/12.3 SP-5 6 14.0/14.3 SP-5 *Lab visual classification based on curve 4. 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell 6 Percent Visual Shell	 >* >* >* SM* SM*							

. PRO	JECT	LOG	DIVISIO Sout	th Atlantic			TALL					SHEET 1	
. BOR \ . DRII	DJECT					·	Jacks	sonv	ille D	istrict		OF 2 SH	EETS
. BOR \ . DRI						9.	SIZE	AND) ТҮРІ	EOFBIT S	ee Remarks		
DRI	St. Johns C	ounty I	easibility			10.				SYSTEM/DATUM		VERTICAL	
DRI										ne, FLE (U.S. Fi	/	NAVD8	
DRI	RING DESIGI /B-SJN15-3			LOCATION COOR X = 597.637	Y = 2,071,656	11.	MAI	NUFA	ACTU	RER'S DESIGNAT] AUTO HAMME] MANUAL HAM	
			1	,	ITRACTOR FILE NO.						DISTURBED	UNDISTURBED	
	Corps of En	<u> </u>	s - CESAJ	6	738-15-5453	12.	тот		SAMPI	LES	4	0	
NAN	ME OF DRILL	.ER				13.	тот		NUMB	ER CORE BOXES	0		
DIR	ECTION OF	BORING		DEG. FROM	BEARING	14.	ELE	VAT	ION G	ROUND WATER			
\boxtimes	VERTICAL INCLINED			VERTICAL		15.	DAT	Е ВС	ORING	;	STARTED 04-09-15	COMPLETE 04-09-1	
тні	CKNESS OF	OVERB	URDEN	N/A		16.	ELE	VAT		OP OF BORING	-49.2 Ft.		
DEF			ROCK	N/A		17.	тот	TAL F	RECO	ERY FOR BORIN	IG 100 %		
	TAL DEPTH C).0 Ft.		18.	SIG	NAT	URE A	ND TITLE OF IN	SPECTOR		
LEV.	DEPTH	LEGEND	CL	ASSIFICATION O	F MATERIALS	F	, RÊC.	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
49.2	0.0					╡							
+ <u>J.</u> 2	- 0.0	• • • •	SAND, po	oorly-graded, mo	ostly fine to		F						
	È.			grained sand-siz grained sand-siz	ed quartz, few ed shell, trace silt,								
	F				2.5Y 6/1 gray (SP)							
	F												
	F					-		1		-51.2			
	È.	l∷.h	From El.	-51.5 to -51.9 Ft	., very shelly sand		ŀ						
	L		seam										
	F												
	F	$ \cdot \cdot \cdot \cdot $											
	F												
	È.	·∴·[`	At El53 sand-size	.6 Ft., mostly fin	e-grained					-54.2			
	F	l∷r		.2 Ft., 2.5Y 5/1 g	gray			2		-54.2			
	F						Γ						
	F	····	From El.	-54.9 to -55.1 Ft	., silt seam								
	F	F: L											
	È.		From El.	-55.8 to -55.9 Ft	., silt seam								
	E												
	F	ŀ···	At FL -57	.0 Ft., little medi	um-grained					-57.2			
	F	[·…]	sand-size	ed shell	3.3.100	Γ	-	3					
58.2	- - 9.0	$ \cdots $											
	-			oorly-graded with						-58.7			
	È.	ŀ.⊞h	gravel-siz	eu sand-sized q ed shell, few sill	uartz, little sand to , strong reaction	F	+	4		-00.1			
	F	[:]#	with HCI,	2.5Y 5/1 gray (ŚP-SM)		Γ						
	F	┢┊╢╢		.7 Ft., few media ained sand-size									
	F	[:.]]#	2.5Y 4/1 0	dark grav									
	È.		At El59	.8 Ft., little sand ak reaction with	to gravel-sized								
	F				inol, in or gray								
	F	[·]‡ 											
	F	 :											
	F												
	F		∽At El62	.4 Ft., 5Y 7/1 lig	nt gray								
	F	 											
	È .	[:.]]											
	ŀ												

-69.2 20.0 ···· · · · · · · · · · · · · · · · ·	CLASSIFICATION OF MATE 66.1 Ft., few fine to mediu ized shell 3: ACE Jacksonville is the cur riginal files. s are field visually classifi ance with the Unified Soils ication System. oratory Testing Results	ustodian for	Plane,	YSTEM/ , FLE (P OF BO	VDATUN (U.S. F ORING ROP UD	t.) NAD83		OF 2 SH TICAL IAVD88	
St. Johns County Feasibility OCATION COORDINATES X = 597,637 Y = 2,071,656 ELEV. DEPTH Buggest Subscription At El6 sand-size -69.2 20.0 NOTES -69.2 20.0 1. USA these or 2. Soils accorda Classific 3. Labor SAMPLE	66.1 Ft., few fine to mediu ized shell ACE Jacksonville is the cu riginal files. s are field visually classifi ance with the Unified Soils ication System. oratory Testing Results	ustodian for	Plane,	, FLE (Р ог во	(U.S. F ORING ROD UD	-69.2	N	IAVD88	N-VALUE
OCATION COORDINATES X = 597,637 Y = 2,071,656 ELEV. DEPTH Output -69.2 20.0 -4 EI6 sand-size -69.3 -6 EI6 sand-size -4 EI6 sand-size -69.3 -6 EI6 sand-size -4 EI.	66.1 Ft., few fine to mediu ized shell ACE Jacksonville is the cu riginal files. s are field visually classifi ance with the Unified Soils ication System. oratory Testing Results	ELEVAT -49.2 RIALS um-grained ustodian for ied in	Ft.	P OF BO	RQD OR UD	-69.2			N-VALUE
X = 597,637 Y = 2,071,656 ELEV. DEPTH -69.2 20.0 · · · · · · · · · · · · · · · · · ·	66.1 Ft., few fine to mediu ized shell ACE Jacksonville is the cu riginal files. s are field visually classifi ance with the Unified Soils ication System. oratory Testing Results	um-grained	Ft.		ROD OR UD	-69.2	EMARKS	BLOWS/ 1 FT.	N-VALUE
elev. DEPTH gg	66.1 Ft., few fine to mediu ized shell ACE Jacksonville is the cu riginal files. s are field visually classifi ance with the Unified Soils ication System. oratory Testing Results	um-grained ustodian for	RĚC	BOX OR SAMPLE		-69.2	EMARKS	BLOWS/	N-VALUE
-69.2 20.0 At El6 sand-siz	S: ACE Jacksonville is the curriginal files. s are field visually classifiance with the Unified Soils ication System. oratory Testing Results	ustodian for							
NOTES 1. USA these of 2. Soils accorda Classifie 3. Labo SAMPLE	ACE Jacksonville is the cu vriginal files. s are field visually classifi ance with the Unified Soils ication System. oratory Testing Results	ied in							
these of 2. Soils accorda Classific 3. Labo SAMPLE	original files. s are field visually classifi ance with the Unified Soils ication System. oratory Testing Results	ied in							
4. Addi 1 P 2 P 3 P	DEPTH CLASS 2.0/2.3 5.0/5.3 8.0/8.3	SP* SP* SP* P-SM* on gradation							

			DIVISIO	N			TALL			y Desiyii	alion	AB-201010	SHEET 1	
DRI	LLING	LOG		ith Atlantic						istrict			OF 2 SI	HEETS
PRO	JECT					_				E OF BIT	See	Remarks		-
S	t. Johns C	County	Feasibility							SYSTEM/DA		HORIZONTAL	VERTICAL	
						L		State	<u>P</u> lar	ne, FLE (U.	S. Ft.)	NAD83	NAVD	38
	ING DESIG		N	LOCATION CO		11.	MA	NUF	CTU	RER'S DESIG	NATIO			
	B-SJN15- LING AGEN				5 Y = 2,073,003								MANUAL HAN	
			rs - CESAJ	1	6738-15-5453	12.	то	TAL S	SAMPI	LES		5	UNDISTURBEI	D (UD)
	E OF DRILL		3 - OLOAJ	, i	0700-10-0400	12	тот			ER CORE BO	VES	0	0	
						-						0		
	CTION OF	BORIN	G	DEG. FROM	BEARING	14.	ELE	:VAT	ION G	ROUND WA	TER	STARTED		
	/ERTICAL NCLINED					15.	DAT	ГЕ ВС	ORING	;		04-09-15	COMPLET 04-09-	
	KNESS OF	OVER		 N/A		16	FLE	VAT		OP OF BORI	NG	-41.2 Ft.	04.00	10
	KNE33 OF	OVER								/ERY FOR B		100 %		
DEPT	TH DRILLEI	D INTO	ROCK	N/A		17.				ND TITLE O				
тоти	AL DEPTH	OF BOF	ING 20	0.0 Ft.			0.0							
LEV.	DEPTH	LEGEND	CI	LASSIFICATION	I OF MATERIALS	F	۰ ۲ĚC.	BOX OR SAMPLE	RQD OR UD			REMARKS	BLOWS/ 1 FT.	N-VALUE
							-							
41.2	0.0	.	SAND. no	oorly-graded	mostly fine-grained	-	┝							
F	-		sand-size	ed quartz, little	e medium-grained									
Ŀ	-		sand-size	ed shell, trace 2.5Y 7/1 light	silt, weak reaction									
ŀ	-	$\cdot \cdot \cdot \cdot$	with FIGI,	2.51 // Tight	gray (SF)									
Ē	-													
Ŀ	_	····												
F	-	$\cdot \cdot \cdot \cdot$												
	-													
ŀ	-									-44.7				
F	-			I.7 Ft., few me				1						
t	-		sand-size	ed shell, disco	ntinue siit									
ŀ	-													
F	-	$\cdot \cdot \cdot$												
Ē	-													
ŀ	-													
ļ	-													
Ŀ	-									40.0				
ŀ	-		-At El48	3.2 Ft., mostly	fine to	┝	-+	2		-48.2				
ļ	-		medium-	grained sand-	sized quartz, little		ŀ							
Ŀ	-	[···]	medium-	grained sand-	sized shell									
ŀ	-													
ļ	-	·												
t	-	[···]												
ŀ	_													
ļ	-	$ \cdot \cdot \cdot \rangle$		I.2 Ft., mostly	fine-grained									
Ŀ	-	[···]	sand-size	ed quartz, little	e fine to	L				-51.7				
ŀ	-	[]	medium-	grained sand-	sized shell, trace silt		┝	3						
ļ	-	$ \cdots $												
Ŀ	-													
F	-	[···]												
ļ	-													
ŀ		· · · ·												
F	-													
Ŀ	-		∽At El54	I.7 Ft., 2.5Y 6/	2 light brownish gray					55 0				
ŀ	_	$ \cdots $		5.2 Ft., mostly		┝	-+	4		-55.2				
ļ	-	····	medium-	grained sand-	sized quartz, little		ŀ	т						
	-		medium-	grained sand-	sized shell									
	DM 402	ليعيد										(Continued		_

DPI		100	G (Cont. Sheet)	INSTALLA							SHEET		٦
				Jackso								SHEETS	3
PROJEC				COORDIN					HORIZONTAL	1	RTICAL		
	ohns Cour			State F					NAD83	<u>i</u>	NAVD88	3	4
	ON COORDI			ELEVATIO		OF B	ORIN	G					
X = 6	600,555	1	,073,003	-41.2 F	T.								-
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMAR	KS	/smola	1 FI.	
			At El57.0 Ft., little sand to gravel- shell	sized		_5_		-57.2					- 1! - - - - - - -
-58.6	17.4		SAND, silty, mostly fine-grained sar quartz, some silt, little fine to medium-grained sand-sized shell, w reaction with HCl, 10Y 5/1 greenish (SM)	reak	_								
-61.2	20.0	HiH						-61.2					
			 NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified i accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIC 1 3.5/3.8 SP 2 7.0/7.3 SP 3 10.5/10.8 SP 4 14.0/14.3 SP 5 16.0/16.3 SP *Lab visual classification based on g curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 5 Percent Visual Shell 	n TORY CATION				Abbrevi	ations:				

								g Designation	VB-SJN15-		
DRILLING	LOG	DIVISION			INSTA					SHEET 1	
. PROJECT		South Atlantic						vistrict	Deres 1	OF 2 S	HEETS
		acibility						E OF BIT See	Remarks	VERTICAL	
St. Johns	County Fe	asionity									
2. BORING DESIG	GNATION	LOCATION	COORDIN	ATES	11. M			ne, FLE (U.S. Ft.) RER'S DESIGNATIO			
VB-SJN15		X = 598		′ = 2,072,752					브	MANUAL HAI	
3. DRILLING AGE			,	ACTOR FILE NO.						UNDISTURBE	
Corps of E		- CESAJ	673	8-15-5453	12. T	OTAL	SAMP	LES	4	0	
4. NAME OF DRIL	LER				13. T	OTAL	NUMB	ER CORE BOXES	0		
					14. E	LEVAT		ROUND WATER			
5. DIRECTION OF		DEG. FRO VERTICA		BEARING				_	STARTED	COMPLET	ED
					15. D	ATE B	ORING	3	04-09-15	04-09-	15
6. THICKNESS O	F OVERBU	rden N/A			16. E	LEVAT		OP OF BORING	-49.6 Ft.		
7. DEPTH DRILLE					17. T	OTAL	RECO	VERY FOR BORING	96 %		
		DCK N/A			18. S	IGNAT	URE A	AND TITLE OF INSPE	ECTOR		
B. TOTAL DEPTH	OF BORIN	G 20.0 Ft.				,					
ELEV. DEPTH	LEGEND	CLASSIFICAT	ION OF M	ATERIALS	RÉC	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
-49.6 0.0		SAND, poorly-grade	d mostly	, fine to	_						
È .		nedium-grained sar									
Ŀ	r	nedium-grained sar	nd-sized	shell, strong							
F	·… ^r	eaction with HCI, 2.	.oro/ig	ray (5P)							
Ę	[····]										
F	.										
F	$ \cdot \cdot \cdot \cdot $										
È.	l∷.k			aroined			4	-52.6			
Ł		At El52.6 Ft., few and-sized shell	medium-	grained		1	1				
ŀ											
F											
Ę		At El54.1 Ft., som	e fine to	medium-graine	b						
F		and-sized shell At El54.6 Ft., mos	tly fine_a	rained							
ŀ	· · · · s	and-sized quartz, fe	ew medii	um-grained							
F	s	and-sized shell, tra	ice silt, w	eak reaction		<u> </u>	4	-55.6			_
Ł	:::: [∨]	vith HCI, 2.5Y 6/2 lig	SUIL DLOM	nisri gray		2	1				
ŀ	$\cdot \cdot \cdot \cdot \cdot \cdot$	At El56.4 Ft., little	fine to m	edium-orained							
F		and-sized shell, str									
Ę		2.5Y 6/1 gray	-								
E_											
-58.1 8.5	· · ·	SAND, poorly-grade	d with eil	t mostly		3	{	-58.1			
Ē.	f f	ine-grained sand-siz	zed quar	tz, little medium		۲, T	1				
Ę		o coarse-grained sa veak reaction with H									
ŀ		gray (SP-SM)		0				-59.6			
F		At El59.6 Ft., few	medium-	grained		4]				
È .		and-sized shell									
F		At El60.6 Ft., little	sand to	gravel-sized							
-61.3 11.7	s	shell, strong reaction	n with HC	й Х							
Ē.		SILT, inorganic-H, s	ome fine	-grained							
	s s	and-sized quartz, li nedium-grained sar	nue fine t nd-sized	o shell. weak							
Ľ		eaction with HCI, 10									
Ē											
	9	gray (MH)									1
		jiay (w⊓)									
	<u> </u>	jiay (M⊓)									
-64.2 - 14.6	, . J []	SAND, clayey, most									

יפח		100	G (Cont. Sheet)	INSTALLA						SHEET 2	
				Jackso				1		OF 2 SI	IEETS
PROJEC		оњ. Г	a cibility	COORDIN/					1	RTICAL NAVD88	
	ohns Cour on coord			State F				, .	! !	NAV Doo	
			s .,072,752	-49.6 F			SURIN	G			
ELEV.	DEPTH		CLASSIFICATION OF MATERIA	-	RÉC.	BOX OR SAMPLE	RQD OR UD	RE	MARKS	BLOWS/ 1 FT.	N-VALUE
		Ĕ		-	REC.	SAD	UD			BLG	> z
-64.8 -65.3	15.2 15.7	• 7	sand-sized quartz, little clay, trace reaction with HCl, 10Y 4/1 dark gre	shell, no enish	ſ						
			\gray (SC)	/							
-65.9	16.3		SAND, poorly-graded with clay, mo fine-grained sand-sized quartz, few	ostiy v clav.	'n						
			discontinue shell, no reaction with	HCI,							
		l	2.5Y 7/2 light gray (SP-SC) SAND, clayey, mostly fine-grained	/							
			sand-sized quartz, little clay, no rea	action with							
			HCI, 5G 5/1 greenish gray (SC) SAND, poorly-graded, mostly fine-g	arainod							
		· · · ·	sand-sized quartz, some fine to	-							
-68.7	19.1	:•:•:	medium-grained sand-sized shell,	trace clay,							
			strong reaction with HCl, N 6/ gray	(5P)]						
-69.6	20.0							-69.6			
			NOTES:					Abbreviations:			
			 USACE Jacksonville is the cust these original files. 	odian for							
			 Soils are field visually classified 	in							
			accordance with the Unified Soils Classification System.								
			3. Laboratory Testing Results								
			SAMPLE SAMPLE LABOR ID DEPTH CLASSIF								
			1 3.0/3.3 SF								
			2 6.0/6.3 SF 3 8.5/8.8 SP-3 4 10.0/10.3 SP-3	SM*							
			*Lab visual classification based on curve	gradation							
			4. Additional Laboratory Testing								
			1 Percent Visual Shell		1		1				1
		1	2 Percent Visual Shell								
		1	3 Percent Visual Shell 4 Percent Visual Shell								
		1									
		1									
					1						1
					1						1
		1									
		1									
					1						1
		1									
	DRM 183				1	I	1				1

			DIVISIO	N		INS	TALLA			g Boolghado		SHEET 1	
DRI	LLING	LOG		h Atlantic			Jackso			istrict		OF 2 SH	EETS
1. PRO	JECT										e Remarks		
S	St. Johns C	ounty F	easibility			10.	C00	RDIN	IATE	SYSTEM/DATUM	HORIZONTAL	VERTICAL	
										ne, FLE (U.S. Ft.	/	NAVD8	88
	ING DESIG		1	LOCATION COOR		11.	MAN	UFA	CTUF	RER'S DESIGNATI			
	B-SJN15-			,	Y = 2,081,469						DISTURBED] MANUAL HAN	
	Corps of En			1	738-15-5453	12.	тоти	AL S	AMPL	LES	4		, (OD)
	IE OF DRILL	<u> </u>			100 10 0400	13	тот		IIMR	ER CORE BOXES	0	0	
											0		
-	CTION OF	BORING		DEG. FROM	BEARING	14.	ELEV		ON G	ROUND WATER	STARTED		
	VERTICAL					15.	DAT	Е ВО	RING	5	03-30-15	03-30-1	
	CKNESS OF	OVERB		N/A	i	16.	FI F\	/ΔΤΙ		OP OF BORING	-48.2 Ft.		
						<u> </u>				/ERY FOR BORING			
7. DEP	TH DRILLED	D INTO F		N/A		17.				ND TITLE OF INS			
8. ТОТ	AL DEPTH (OF BORI	NG 20.	.0 Ft.									
ELEV.	DEPTH	LEGEND	CL	ASSIFICATION O	F MATERIALS	R	یڈ د . ک	SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
		+				\neg		+					-
-48.2	0.0	$\left\{ \ldots \right\}$	SAND no	orly-graded, mo	stly fine to		\vdash	\dashv					
	-		medium-g	rained sand-siz	ed quartz, some								
	<u>-</u>			dium-grained sa strong reaction									
	-	$\cdot \cdot \cdot \cdot$	2.5Y 6/1 g		with HCI,								
	-												
	-												
	-	•••••											
	-		.4 51 51	.2 Ft., few mediu	um argingd		\rightarrow	_		-51.2			
	_			d shell, disconti			⊢	1					
	-		reaction w	vith HCl									
	-												
	-												
	-												
	_												
	_	k	-At El _54	.2 Ft., little medi	um-grained	⊢		2		-54.2			
	-				eaction with HCI			-					
	-												
	-	••••											
	F												
	-	$ \cdot \cdot \cdot $:									
		l⊡ľ	At El56.	5 Ft., mostly fin d quartz, little fir	e-grained								
	F		medium-g	rained sand-siz	ed shell, weak								
	-		reaction w	with HCI, 2.5Y 5/	1 gray	F	-+			-57.7			╞╴╏
	<u>-</u>						⊢	3					
-58.9	- 10.7		SAND no	orly-graded with	n silt. mostlv								
			fine-graine	ed sand-sized q	uartz, few					-59.7			
	L				hell, few silt, weak 1 gray (SP-SM)	┢		4		-39.1			┼─┨
	-							\neg					
	<u>-</u>												
	-												
		$\left[\cdot \right] \left[\cdot \right]$		6 Ft., trace she	ll, no reaction with								
	L		HCI										
	-												
	-												1

LOG (Cont. Sheet) y Feasibility MATES (= 2,081,469 CLASSIFICATION OF MATERIA SAND, poorly-graded, mostly fine-g. SAND, poorly-graded, mostly fine-g.	am -grained h HCl, rained race	ATE SY Plane, N TOP	STEN	// DAT (U.S.	. Ft.) NAD83 G	OF 2 S	
ATTES Y = 2,081,469 CLASSIFICATION OF MATERIA From El63.6 to -64.0 Ft., shell seat At El64.0 Ft., little fine to medium-sand-sized shell, weak reaction with 2.5Y 6/1 gray SAND, poorly-graded, mostly fine-grained sand-sized shell, tr siltstone, strong reaction with HCl, 2.5Y 8/1 white (SP) NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified i accordance with the Unified Soils Classification System.	State F ELEVATIO -48.2 F LS am -grained hHCl, rained race	Plane, N TOF	FLE OF B	(U.S. oring	. Ft.) NAD83 g REMARI	NAVD88	N-VALUE
ATTES Y = 2,081,469 CLASSIFICATION OF MATERIA From El63.6 to -64.0 Ft., shell seat At El64.0 Ft., little fine to medium-sand-sized shell, weak reaction with 2.5Y 6/1 gray SAND, poorly-graded, mostly fine-grained sand-sized shell, tr siltstone, strong reaction with HCl, 2.5Y 8/1 white (SP) NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified i accordance with the Unified Soils Classification System.	ELEVATIO -48.2 F LS am -grained hCl, rained race	N TOF	OF B	ORING	с 	KS SING	N-VALUE
Generation CLASSIFICATION OF MATERIA From El63.6 to -64.0 Ft., shell sea At El64.0 Ft., little fine to medium- sand-sized shell, weak reaction with 2.5Y 6/1 gray SAND, poorly-graded, mostly fine-g. sand-sized quartz, some fine to medium-grained sand-sized shell, tr siltstone, strong reaction with HCl, 2.5Y 8/1 white (SP) NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified i accordance with the Unified Soils Classification System.	LS -grained h HCl, rained race		BOX OR SAMPLE	ROD OR UD	-68.2	KS NOT	N-VALUE
 From El63.6 to -64.0 Ft., shell seat At El64.0 Ft., little fine to medium-sand-sized shell, weak reaction with 2.5Y 6/1 gray SAND, poorly-graded, mostly fine-g sand-sized quartz, some fine to medium-grained sand-sized shell, tr siltstone, strong reaction with HCl, 2.5Y 8/1 white (SP) NOTES: USACE Jacksonville is the custor these original files. Soils are field visually classified i accordance with the Unified Soils Classification System. 	am -grained h HCl, rained race	R [#] C.	BOX OR SAMPLE	ROR DD	-68.2	KS NOT	N-VALUE
At El64.0 Ft., little fine to medium- sand-sized shell, weak reaction with 2.5Y 6/1 gray SAND, poorly-graded, mostly fine-g sand-sized quartz, some fine to medium-grained sand-sized shell, tr siltstone, strong reaction with HCI, 2.5Y 8/1 white (SP) NOTES: 1. USACE Jacksonville is the custo these original files. 2. Soils are field visually classified i accordance with the Unified Soils Classification System.	-grained h HCl, rained race						
 sand-sized quartz, some fine to medium-grained sand-sized shell, tr siltstone, strong reaction with HCl, 2.5Y 8/1 white (SP) NOTES: USACE Jacksonville is the custo these original files. Soils are field visually classified i accordance with the Unified Soils Classification System. 	race	-					
 siltstone, strong reaction with HCI, 2.5Y 8/1 white (SP) NOTES: USACE Jacksonville is the custor these original files. Soils are field visually classified i accordance with the Unified Soils Classification System. 	/						
 USACE Jacksonville is the custo these original files. Soils are field visually classified i accordance with the Unified Soils Classification System. 							
 USACE Jacksonville is the custo these original files. Soils are field visually classified i accordance with the Unified Soils Classification System. 					Abbreviations:		
	CATION * * * M*						
	 4 11.5/11.8 SP-S *Lab visual classification based on g curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 	 4 11.5/11.8 SP-SM* *Lab visual classification based on gradation curve 4. Additional Laboratory Testing Percent Visual Shell Percent Visual Shell Percent Visual Shell 	 4 11.5/11.8 SP-SM* *Lab visual classification based on gradation curve 4. Additional Laboratory Testing Percent Visual Shell Percent Visual Shell Percent Visual Shell 4 Percent Visual Shell 	4 11.5/11.8 SP-SM* *Lab visual classification based on gradation curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell	4 11.5/11.8 SP-SM* *Lab visual classification based on gradation curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell	4 11.5/11.8 SP-SM* *Lab visual classification based on gradation curve * 4. Additional Laboratory Testing 1 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell 7 Percent Visual Shell 8 Percent Visual Shell 9 Percent Visual Shell 1 Percent Visual Shell 1 Percent Visual Shell	4 11.5/11.8 SP-SM* *Lab visual classification based on gradation curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell

			DIVISION			INS	TALLAT		iy Desiyi	nation	VD-SJINIS	SHEET 1	
DRI	LLING	LOG	South At	lantic		I	lacksor		District			OF 2 S	
. PRO	JECT								E OF BIT	See	Remarks		
S	St. Johns C	ounty F	easibility			10.	COOR	DINATE	SYSTEM/D		HORIZONTAL	VERTICAL	
		•					Sta	te Plai	ne, FLE (U	J.S. Ft.)	NAD83	NAVD	88
. BOR	ING DESIG	NATION	LOC/	ATION COOR	DINATES	11.	MANU	FACTU	RER'S DESI	GNATIO		айто намм	ER
	/B-SJN15-3	-	X		Y = 2,080,870							MANUAL HAI	
			05041		ITRACTOR FILE NO.	12.	TOTAL	SAMP	LES	D	ISTURBED	UNDISTURBE	D (UD)
	Corps of En		3 - CESAJ	¦ 6	738-15-5453	-					4	0	
. NAN		.ER				13.	TOTAL	NUMB	ER CORE B	BOXES	0		
. DIR		BORING	DE	G. FROM	BEARING	14.	ELEVA		ROUND W	ATER			
	VERTICAL INCLINED		VE	RTICAL		15.	DATE	BORING	G		STARTED 03-30-15	COMPLET 03-30-	
. тні	CKNESS OF	OVERB	urden N/A	4		16.	ELEVA		OP OF BOR	RING	-50.2 Ft.		
			ROCK N/A			17.	TOTAL	RECO	VERY FOR	BORING	93 %		
. DEP						18.	SIGNA	TURE A	AND TITLE	OF INSP	ECTOR		
в. тот	AL DEPTH C	OF BORI	NG 20.0 Ft	t.			,						
ELEV.	DEPTH	LEGEND	CLASSI	IFICATION O	F MATERIALS	R	%C''''''''''''''''''''''''''''''''''''	RQD OR UD			REMARKS	BLOWS/ 1 FT.	N-VALUE
-50.2	0.0	$\left \ldots \right $	SAND, poorly-	araded ma	stly fine to				4				
	-	[⊡]			ed quartz, little								
	F	h	medium-grain	ed sand-siz	ed shell, weak								
	F	\	reaction with H From El51.0		1 light gray (SP)								
	F	·	- TOIT LI01.0	5 to -51.51 t	., 5101 50011								
	-	[⊡]				┝	1	-	-52.2				
	-							-					
	F												
	F												
-53.9	3.7		O A N E	. ,									
	F	 	SAND, poorly- fine-grained sa			┝	2	-	-54.2				+
-55.0	- - 4.8	[:.]‡ 	medium-grain	ed sand-siz	ed shell, few silt,		⊢	-1					
-55.0	4.0	┟┄┄╢	weak reaction	with HCI, 2	.5Y 5/1 gray	h							
	L	$ \cdots $	(SP-SM) From El54.8	3 to -55.0 Ft	., shell seam	/							
	-		SAND, poorly-	-graded, mo	stly fine to	-			56.2				
	F		medium-grain			┢	3	-	-56.2				-
	-	.∴.k	medium-grain reaction with H		ed shell, weak 1 light gray (SP)		ľ	1					
-57.3	7.1	l ⊡l,	At El56.7 Ft	., 2.5Y 6/1 g	gray								
-	-		SAND, poorly-	-graded with	n silt, mostly	\neg							
	-		tine-grained sa	and-sized q	uartz, few silt, few ed shell, weak				-58.2				
	-		reaction with I	HCI, 2.5Y 5/	1 gray (SP-SM)	┢	4	1	-30.2				
	-							1					
	-	ŀ .₩∎											
	F	 											
	F												
	F												
		 . 											
	–	 ::!!#											
	L	 .											
	-	 ·∶ † 											
	-	 : •!!#											
	F												
	<u> </u>	ŀΉŀ	-At El63.1 Ft	some fine	-grained								
	Ł	 ·: 	sand-sized qu	artz, some :	sand to								
	F	[.]]	gravel-sized s	hell									
	-	I .11 						1	1				1
	L	↓ ↓ ↓ ↓					1						
	-												

DRIL	LING	LOC	G (Cont. Sheet)	INSTALLA					SJN15-3	SHEET 2	
PROJECT			(· ··································	Jackso COORDIN						OF 2 S	HEETS
	hns Coun	ty Fea	asibility	State I				1	1	NAVD88	
	N COORDI			ELEVATIO					<u> </u>		
X = 59	93,170	Y = 2	,080,870	-50.2	₹t.	-	-				
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD	RE	MARKS	BLOWS/ 1 FT.	N-VALUE
-68.7	18.5		ົ∽At El67.1 Ft., 8" layer of clayey fi	ne sand	_						
-70.2	20.0							-70.2			
	2010		NOTES:					Abbreviations:			
			 USACE Jacksonville is the custa these original files. Soils are field visually classified accordance with the Unified Soils Classification System. Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFI	in ATORY CATION ** SM* SM*							

						E	<u>Borin</u>	g Designation	<u>VB-SJN15-3</u>	38	
DRILLING	LOG	DIVISION			I	LLATI		liatriat		SHEET 1	
1. PROJECT	-	South Atlantic	U					istrict E OF BIT See	Remarks	OF 2 SI	REEIS
St. Johns C	Cunty F	asibility						SYSTEM/DATUM	HORIZONTAL	VERTICAL	
	Sunty i t	Actionity						ne, FLE (U.S. Ft.)		NAVD	
2. BORING DESIGI	NATION	LOCATIO	N COORDIN	ATES	11. N			RER'S DESIGNATIO			
VB-SJN15-		X = 59		′ = 2,080,308						MANUAL HAI	
3. DRILLING AGEN		05044		ACTOR FILE NO.	12. т	OTAL	SAMP			INDISTURBE	D (UD)
Corps of En 4. NAME OF DRILL		- CESAJ	6730	8-15-5453				<u> </u>	5	0	
					-	-	-	ER CORE BOXES	0		
5. DIRECTION OF	BORING	DEG. FF	ROM	BEARING	14. E	LEVA		ROUND WATER			
VERTICAL		VERTIC			15. D	ATE B	ORING	3	STARTED 03-29-15	03-29-	
6. THICKNESS OF	OVERBU	RDEN N/A	:		16 F			OP OF BORING	-46.2 Ft.	00-20-	15
					<u> </u>			VERY FOR BORING	90 %		
7. DEPTH DRILLED	D INTO R	DCK N/A						AND TITLE OF INSPI			
B. TOTAL DEPTH (OF BORIN	IG 20.0 Ft.				,					
ELEV. DEPTH	LEGEND	CLASSIFICA	TION OF M	ATERIALS	RĚC	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
						1					
-46.2 0.0		SAND, poorly-grad	led, mostly	/ fine to	_			1			
F	1	medium-grained sa	and-sized	quartz, little			1				
F		medium-grained sa strong reaction wit					1				
Ę	[::::] `	J	_ ,	J - J (-)			1				
Ŀ	$ \cdot \cdot \cdot $						1				
Ł								-48.7			
F						1]				
F											
Ę							1				
F	···						1				
ŀ	[⊡]						1				
F	$ \cdots $	At El51.2 Ft., fev	v medium.	arained		2	{	-51.2			
Ę	l.∵.l\ :	sand-sized shell, d	liscontinue	silt		<u>⊢</u>	1				
È.	···· ',	At El51.5 Ft., littl sand-sized shell, w	le fine to m veak react	nedium-grained			1				
Ę	:∵: `						1				
Ł							1				
F		At El53.2 Ft., mo sand-sized quartz,					1	-53.7			
F		sand-sized shell, ti				3	1				
F							1				
Ę	ト	At El54.7 Ft., so	me fine to	medium-graine	d		1				
F		sand-sized shell, s 2.5Y 7/1 light gray		tion with HCI,							
ŀ	.·.·. \	At El55.3 Ft., mo	ostly fine to			4	{	-55.7			
-56.5 10.3		medium-grained sa medium-grained sa				Γ.	1				
-	1. III / I	reaction with HCI, 2	2.5Y 5/1 g	ray	Λ						
È.		SAND, poorly-grac				<u> </u>	4	-57.2			
Ę		medium-grained sa	and-sized	shell, few silt,		5	1				
Ł		weak reaction with (SP-SM)	HCI, 2.5Y	5/1 gray							
F	:.	At El57.2 Ft., tra	ce shell				1				
Ę							1				
F	 ·. 						1				
Ł	 :• 										
Γ							1				
Г	1 1 1										
Ē											

DRI	LLING	LOC	G (Cont. Sheet)	INSTALLA					SHEET	
				Jackso COORDIN					OF 2	SHEETS
PROJEC	ohns Coun	tv Fe	asihility	State I					NAVD88	
	ON COORDI			ELEVATIO				/ .		
			2,080,308	-46.2		••• -		-		
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD	REM	ARKS OI	N-VALUE
-61.5	15.3		SAND, poorly-graded with silt, most to gravel-sized shell, some fine-grai sand-sized quartz, strong reaction v 10Y 5/1 greenish gray (SP-SM) At El63.1 Ft., N 7/ light gray At El63.7 Ft., 10Y 5/1 greenish gr	ned vith HCl,	_					
-66.2	20.0		NOTES: 1. USACE Jacksonville is the custor those original files	odian for				-66.2 Abbreviations:		
			these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIE 1 2.5/2.8 SP 2 5.0/5.3 SP 3 7.5/7.8 SP 4 9.5/9.8 SP 5 11.0/11.3 SP-S *Lab visual classification based on g curve 4. Additional Laboratory Testing 1 Percent Carbonate 1 Percent Visual Shell 2 Depart Visual Shell	TORY CATION * * * * *						
			 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 							

			DIVISIO	N		INS	TALL			g Doolghaa			SHEET 1		٦
DRI	LLING	LOG								istrict					;
1. PRO	JECT										See Remarks				1
S	St. Johns C	county	Feasibility			10.	CO	ORDI	NATE	SYSTEM/DATU	M HORIZONT		VERTICAL	-	1
										· · ·	/		NAVD	88	
			I			11.	MA	NUFA	CTU	RER'S DESIGNA	TION OF DRILL				
			¦	,	, ,	-									
-			s - CESAJ	1		12.	TO	FAL S	SAMPI	LES	3	i		00)	
						13.	то		UMB	ER CORE BOXE					-
						-					-				-
		BORIN	3	DEG. FROM	BEARING			VAI		ROOND HATER				ED	-
						15.	DA	ГЕ ВС	ORING	•	-	- i			
6. ТНІ	CKNESS OF	OVER	URDEN	N/A	1	16.	ELE	VAT	ΙΟΝ Τ	OP OF BORING	-48.1 Ft.				1
						17.	то	TAL F	RECO	VERY FOR BORI					-
7. DEP	TH DRILLE	D INTO	ROCK	N/A											-
8. ТОТ	AL DEPTH	OF BOR	ING 20	.0 Ft.			,								
ELEV.	DEPTH	LEGEND	CL	ASSIFICATION O	F MATERIALS	R	ес.	BOX OR SAMPLE	RQD OR UD		REMARKS	5	BLOWS/ 1 FT.	N-VALUE]
						+	\neg								1
-48.1	0.0	+	SAND no	orly-graded mo	stly fine-arained		╞								-
	F		sand-size	d quartz, little m	edium-grained										F
	BORING DESIGNATION LOCATION COORDINATES 11. MANUFACTURER'S DESIGNATION OF DRILL AUTO HAMME VB-SJN15-39 X = 593,489 Y = 2,082,312 Imanual Hamme Manual Hamme DRILLING AGENCY CONTRACTOR FILE NO. 6738-15-5453 12. TOTAL SAMPLES DISTURBED UNDISTURBED Corps of Engineers - CESAJ 6738-15-5453 13. TOTAL NUMBER CORE BOXES 0 0 NAME OF DRILLER 13. TOTAL NUMBER CORE BOXES 0 0 0 DIRECTION OF BORING DEG. FROM VERTICAL BEARING 14. ELEVATION GROUND WATER 03-30-15 <td></td> <td>F</td>			F											
	ŀ	····	with FICI,		ay (31)										F
	F														F
	F														F
	ŀ	$ \cdot \cdot \cdot $													F
	-					L				-51.1					Ļ
	-							1							E
	F	$ \cdots $													F
	-				um-grained										F
	-		30110-3120												E
	-														-
	-				ction with HCI,										F
	-		2.515/10	Jiay						-54.1					Ł
	-						-	2							-
-55.0	- 6.9									-55 1					F
	-		SAND, po	orly-graded with	n silt, mostly	7	+	3		00.1					t
	F	 .	medium-o	eu sanu-sized q grained sand-siz	ed shell, few silt.		ſ								ŀ
	F	[.]]	weak read	ction with HCI, 2	.5Y 5/1 gray										F
	È	·:	(SP-SM)												ţ
	Ł	 													F
	ŀ	[:·]]													F
	È	 ·.													ŧ
	F	 													F
	ŀ	[:·]]													F
	E	 .													F
	Ł	 													Ł
	ŀ														F
	F	 : #													F
	Ł	 :. 	∽At El60.	.4 Ft., mostly fin	e to										F
	F		sand to a	ravel-sized shell	, strong reaction										F
	t	·: [with HCI		-										È
	ŀ	 ·.	-At El61.	.2 Ft., few fine to	o medium-grained										\mathbf{F}
-62.6		[.]]													F
-02.0					-										Ł
															Ē.

DR		100	G (Cont. Sheet)	INSTALLA							SHEET		
				Jackso					1			SHEET	5
PROJEC				COORDINA					HORIZONTAL	1	RTICAL		
	lohns Coun			State F					NAD83		NAVD88	3	_
				ELEVATIO		OF B	ORIN	G					
X = :	593,489		,082,312	-48.1 F	t.								_
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIAL	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMARK	5	BLOWS/	1 FI.	
													- 15 -
-68.1	20.0							-68.1					-
			NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified in accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIC 1 3.0/3.3 SP ² 2 6.0/6.3 SP ² 3 7.0/7.3 SP-SI *Lab visual classification based on ground curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell	n TORY CATION M*				Abbrevia	ations:				

			DIVISIO	N		INS.	TALL			<u>g = ee.g.</u>	auon	VD-SJINTS	SHEET	1
DRI	LLING	LOG	Sout	h Atlantic		J	acks	sonv	ille D	istrict			OF 2	SHEETS
. PRO										E OF BIT		Remarks		
S	st. Johns C	ounty F	easibility			10.				SYSTEM/DA		HORIZONTAL		
POP	ING DESIGI			LOCATION COOR		44				ne, FLE (U. RER'S DESIG		NAD83		/D88
	B-SJN15-4				Y = 2,081,732		IVIAI	NUFA	40101	XER 3 DESIG] AUTO HAI] MANUAL I	
	LING AGEN	-			TRACTOR FILE NO.	42	T01		SAMPI	EQ	DI	STURBED	UNDISTUR	BED (UD)
	orps of En	0	s - CESAJ	6	738-15-5453	12.	101			LEJ		4	0	
. NAN	IE OF DRILL	ER				13.	тот		NUMB	ER CORE BO	DXES	0		
. DIRE		BORING	i	DEG. FROM	BEARING	14.	ELE	VAT	ION G	ROUND WA	TER			
	VERTICAL INCLINED			VERTICAL		15.	DAT	Е ВС	ORING	;		STARTED 03-30-15	СОМРL 03-3	ETED 30-15
. тніс	KNESS OF	OVERB	URDEN	N/A		16.	ELE	VAT	ION T	OP OF BORI	NG	-44.6 Ft.		
. DEP	TH DRILLED		ROCK	N/A		17.	тот	AL F	RECO	ERY FOR B	ORING	83 %		
тот	AL DEPTH C		NG 20	.0 Ft.		18.	SIG	NAT	URE A	ND TITLE O	F INSPE	CTOR		
. 101			NG 20.	.0 Fl.			,							
ELEV.	DEPTH	LEGEND	CL	ASSIFICATION O	F MATERIALS	R	۴C.	BOX OR SAMPLE	RQD OR UD			REMARKS	BL <u>ow</u> s/	1 FT.
-44.6	0.0													
	-	$\left \cdots \right $	SAND, po	orly-graded, mo	stly fine-grained		F							
	-	$ \cdots $	sand-size	d quartz, little m d shell, trace sill	eolum-grained									
				2.5Y 7/1 light gr										
		l∷r	-At FL _16	.2 Ft., 2.5Y 6/1 g	irav									
			7 (()).	.211., 2.01 0/19	jiuy	⊢	+	1		-46.6				
	-	• . • . •					ľ							
	-													
	-	ŀ∷⊦	-From FL -	-48.0 to -48.2 Ft.	shell seam									
	-							-		-48.6				
	_	·∴· `	-At El48. sand-size	.6 Ft., few mediu d shell	im-grained		-	2						
	-	l∵ŀ	-From El	49.3 to -49.4 Ft.	, shell seam									
	-	••••												
	-	l∷k	-At El50.	.3 Ft., 2.5Y 5/1 g	irav									
	-				, <u>,</u>					-51.1				
	-							3		01.1				
	-													
	-	∷ ∷												
-52.7	8.1		SAND no	orly-graded with	silt mostly									
	-	[:•]‡ 	fine-graine	ed sand-sized qu	uartz, few silt, trace	e								
	- -	 : 	shell, wea (SP-SM)	K reaction with H	HCI, 2.5Y 5/1 gray	┝	\rightarrow	4		-53.6				
	-		(2. 0)				ŀ	-						
	- 	 ∙: 												
	-	[]]												
	- 	 · : 												
	-	 :• ‡												
	<u>-</u>	 .: 												
	-	[:-]‡ 												
	-	·:												
	-	.: 												
	-													
	-	1. 111												

		100	G (Cont. Sheet)	INSTALLA				<u>g 200.g</u>		-	SHEET	2	٦
				Jackso					1		OF 2	SHEET	S
PROJEC				COORDINA					HORIZONTAL	1			
	ohns Coun			State F					NAD83	į	NAVD88		_
	on coordi 592,660		s ,081,732	ELEVATIO -44.6 F		OFE	SORIN	G					
ELEV.	DEPTH		CLASSIFICATION OF MATERIA		RÉC.	BOX OR SAMPLE	RQD OR UD		REMARK	s	BLOWS/	N-VALUE	
-61.2	16.6				-								
-64.6	20.0							-64.6					
			NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified if accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIC 1 2.0/2.3 SP 2 4.0/4.3 SP 3 6.5/6.8 SPP 4 9.0/9.3 SP-S *Lab visual classification based on g curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 4 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 4 Percent Visual Shell 5 Percen	n TORY CATION				Abbrevi	ations:				

			DIVISI	ON		INST			g Designatio		SHEET 1	
DRI	LLING	LOG	Sou	uth Atlantic			ckson		istrict		OF 2 SH	EETS
1. PRO	JECT					9. S	ZE ANI	р түр	e of bit Se	e Remarks		
S	t. Johns C	County	Feasibility	,		10.			SYSTEM/DATUM		VERTICAL	
0 000				-					ne, FLE (U.S. Ft RER'S DESIGNATI		NAVD8	
	ING DESIG B-SJN15-		N I	LOCATION COOR	Y = 2,081,200	11.	MANUF	ACIU	RER'S DESIGNATI] AUTO HAMME] MANUAL HAM	
	LING AGE			,	ITRACTOR FILE NO.					DISTURBED	UNDISTURBED	
			rs - CESA	J 6	738-15-5453	12.	TOTAL	SAMP	LES	6	0	
4. NAM	E OF DRILL	LER				13.	TOTAL	NUMB	ER CORE BOXES	0		
5. DIRE	CTION OF	BORIN	G	DEG. FROM	BEARING	14. 1	ELEVA		ROUND WATER			
\boxtimes	VERTICAL	201111	-	DEG. FROM VERTICAL		15.	DATE B	ORING)	STARTED 03-29-15	COMPLETE 03-29-1	
6. тніс	KNESS OF	OVER	BURDEN	N/A		16.	ELEVA		OP OF BORING	-44.5 Ft.		
7. DEP	TH DRILLEI		ROCK	N/A		17.	TOTAL	RECO	VERY FOR BORIN	G 85 %		
						18.	SIGNAT	URE /	ND TITLE OF INS	PECTOR		
5. TOT	AL DEPTH			0.0 Ft.		L	,					
ELEV.	DEPTH	LEGEND	с	LASSIFICATION O	F MATERIALS	RĚ	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
-44.5	0.0											
-44.5			SAND, p	oorly-graded, mo	stly fine to							
	-		medium-	-grained sand-siz	ed quartz, little ed shell, trace silt,							
	-				.5Y 6/1 gray (SP)			1				
	-			,	0,,,,,							
	-	• • • •							-46.5			
	-	• • • •					1]				
	-											
		• • • •										
	-	••••										
	-			8.4 Ft., mostly fin	e-arained			1	-48.5			
	_	• • • •	sand-size	ed quartz, few mo	edium-grained		2	-				
	-	••••	sand-siz	ed shell, disconti	nue silt							
	-											
	_											
		••••					3	-	-50.5			
	-							1				
	-	$ \cdot \cdot \cdot $						1				
	-											
	-							1	-52.5			
	-	$ \cdot \cdot \cdot $					4	1	02.0			
	_											
		$\cdot \cdot \cdot$						1				
	-	:∴+		3.8 Ft., few mediu	um-grained			1				
	-	$[\cdot \cdot \cdot]$	sand-size						-54.5			
	-	$ \cdot \cdot \cdot \rangle$					5	4				
	-	····						1	-55.5			
	-						6	1	-00.0			\vdash
	-							1				
	-							1				
	-											
	_	$ \cdots $										
	-	$\left \cdot \cdot \cdot \right $										
	-	$\left[\cdot \cdot \right]$						1				
		$ \cdots $						1				
	-	$ \cdot \cdot \cdot $										
	-							1				
										(Continued)		<u> </u>

DRI	LLING	LO	G (Cont. Sheet)	INSTALLA		Dict	ict				SHEET 2	
PROJEC			· · · · · ·	Jackso COORDINA				IM		!	OF 2 S	HEETS
	r ohns Cour	ntv Fe	asibility	State F					NAD83	V	NAVD88	
				ELEVATIO								
	591,779			-44.5 F								
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	ALS	RÉC.	BOX OR SAMPLE	RQD OR UD		REM	IARKS	BLOWS/ 1 FT.	N-VALUE
-61.4	16.9		∽At EI60.7 Ft., little sand to gravel shell	-sized								
-64.5	20.0							-64.5				
			NOTES: 1. USACE Jacksonville is the cust these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE ID DEPTH CLASSIFI 1 2.0/2.3 SF 2 1 2.0/2.3 SF 3 6.06.3 SF 4 8.0/8.3 5 10.0/10.3 6 11.0/11.3 SF 6 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell	in ATORY ICATION 				Abbrev	lations:			

			DIVISIO	N		INS	TALL			g Design	auon	AD-21113	SHEET 1	
DRI	LLING	LOG		th Atlantic						istrict			OF 2 SH	IEETS
I. PRO	JECT					9.	SIZE	AND	ТҮР	E OF BIT	See	Remarks		
S	St. Johns C	ounty	Feasibility			10.	CO	ORDI	NATE	SYSTEM/DA	ТОМ	HORIZONTAL	VERTICAL	
										ne, FLE (U.			NAVD8	-
			1			11.	MA	NUF	ACTU	RER'S DESIG	SNATIO			
	B-SJN15-4				Y = 2,083,186						! D		MANUAL HAN	
			s - CESAJ	1	6738-15-5453	12.	тот	TAL S	SAMP	LES		5	0	(02)
	E OF DRILL			1		13.	то	TAL I	NUMB	ER CORE BO	DXES	0	-	
						14	FLE	VAT		ROUND WA	TER	-		
	ECTION OF	BORING	3	DEG. FROM VERTICAL	BEARING	<u> </u>						STARTED	COMPLETE	D
_	INCLINED					15.	DA	FE B(ORING	6		03-30-15	03-30-1	
. тніс	KNESS OF	OVERE		N/A		16.	ELE		ΙΟΝ Τ	OP OF BOR	NG	-45.0 Ft.		-
						┢──				ERY FOR B		96 %		
. DEP	TH DRILLED	о імто	ROCK	N/A										
. тот	AL DEPTH C	OF BOR	ING 20	.0 Ft.			,							
ELEV.	DEPTH	LEGEND	CL	ASSIFICATION O	F MATERIALS	R	ес.	BOX OR SAMPLE	RQD OR UD			REMARKS	BLOWS/ 1 FT.	N-VALUE
		+				+	\dashv							
-45.0	0.0	$\left\{ \ldots \right\}$	SAND po	orly-graded, so	me fine to		┝							
	È	[⊡]	coarse-gr	ained sand-size	ed shell, some fine									
-46.1	L 1.1		to mediun	n-grained sand-	sized quartz, trace ICI, 2.5Y 6/2 light									
10.1	-	≁ւր	brownish	gray (SP)	101, 2.51 0/2 light									
	-		^L SAND, pc	oorly-graded, mo	ostly fine-grained									
	_	l.·.·.		d quartz, little m d shell (SP)	nedium-grained									
	-	$ \cdot \cdot \cdot $	50110-5120	u sheli (SF)			_	1		-47.5				
	-						ŀ	<u> </u>						
	_	l.·.·.												
	-	$ \cdots $												
	-													
	-	l.⁺.⁺.												
	_	$ \cdots $				-	_	2		-50.0				
	-						ŀ							
	-													
	-													
	-									-52.0				
	-	$ \cdots $	At FL -52	.1 Ft., 2.5Y 5/2	gravish brown	┢	+	3		-52.0				
	-	····					ſ							
	F	···												
		$ \cdots $												
	<u>-</u>	[:·:·]								-54.0				
	F	. [.]					Ţ	4						
	-	$ \cdots $												
	<u>–</u>	:·:·]												
	F													
	Ē	∴†	-At El55	.8 Ft., little fine-	grained sand-sized									
	-	::::	shell, wea	ak reaction with	HCI,					-56.5				
	-		101 5/1 g	reenish gray		Γ	Ţ	5						
	F	$ \cdots $												
	F	[:·:·]												
	–													
	-	$ \cdots $												
	-	[····]												
	F													
	L	[····]												
		<u></u>												

DR	ILLING	LO	G (Cont. Sheet)	INSTALLA Jackso		Dict	ict				HEET 2	
ROJEC			. /					IM	HORIZONTAL		F 2 SI	16613
	ohns Cour	nty Fe	asibility	State F					NAD83	1	VD88	
	ON COORD			ELEVATIO								
X = !	592,989	Y = 2	,083,186	-45.0 F	ťt.							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMA	RKS	BLOWS/ 1 FT.	N-VALUE
-64.1	19.1		At El62.4 Ft., little fine to coarse- sand-sized shell	grained								
-65.0	20.0							-65.0				
			NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE ID DEPTH CLASSIFIC 1 2.5/2.8 SP 2 3 7.0/7.3 SP 3 4 9.0/9.3 5 11.5/11.8 SP 5 4 9.0/9.3 SP 5 5 11.5/11.8 SP 3 7 1.1.5/11.8 SP 3 4 9.0/9.3 SP 5 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 P	in TORY CATION * * *				Abbrev	iations:			

			DIVISI	ON			INS	TAL			g Desigi	auon	VD-SJINIS	SHEET	1
DRI	LLING	LOG		uth Atlantic							istrict			OF 2 5	
i. PRO	JECT		-				9.	SIZE		ТҮР	E OF BIT	See	Remarks		
S	t. Johns C	county	Feasibility	/			10.				SYSTEM/D		HORIZONTAL	VERTICA	L
				-							ne, FLE (U			NAVE	
			l				11.	MA	NUF	ACTU	RER'S DESIG	GNATIO			
	B-SJN15-	-		X = 592	,	Y = 2,082,636 TRACTOR FILE NO.	-					1		MANUAL HA	
	orps of Er		s - CESA	J	1	738-15-5453	12.	то	TAL	SAMP	LES		5	0	(=_/
. NAM	E OF DRILL	.ER			•		13.	то	TAL	NUMB	ER CORE B	OXES	0		
							14.	ELI	ΕνΔΤ			TER			
	CTION OF	BORING	•	DEG. FR		BEARING							STARTED	COMPLE	TED
_	INCLINED						15.	DA	TE B	ORING	•		03-30-15	03-30	
. тніс	KNESS OF	OVERE	URDEN	N/A		•	16.	EL	EVAT	ION T	OP OF BOR	ING	-43.5 Ft.	1	
				N1/A			17.	то	TAL	RECO	VERY FOR E	BORING	95 %		
. DEP	TH DRILLEI	DINTO	ROCK	N/A			18.								
. тот	AL DEPTH (OF BOR	ING 2	0.0 Ft.					,						
ELEV.	DEPTH	LEGEND	c	LASSIFICAT	TION OF	MATERIALS	F	хёс.	BOX OR SAMPLE	RQD OR UD			REMARKS	BLOWS/ 1 FT.	N-VALUE
40.5	0.0														
-43.5	0.0	<u></u>	SAND. r	oorly-grade	ed. mo	stlv fine to	_								
	-		medium	-grained sa	nd-size	ed quartz, little									
	-					ed shell, weak 1 light gray (SP)									
	_	$[\cdot \cdot \cdot]$													
	-														
	-														
	-	[:∵:[, intermittent					10 F				
			to 3")	of shell and	siit (se	ams vary from 1"	F	_	1		-46.5				-
	-		,												
	-	$[\cdots]$													
	_	$ \cdot \cdot \cdot \cdot $													
	-														
	-										-49.0				
	-	$ \cdots $		9.0 Ft., mos			F		2		40.0				
			sand-siz	ed quartz, s ed shell_st	some r	nedium-grained action with HCI									
	-		50110 512		iong ic										
	-														
	-														
	-	 ∵													
	-	[⊡		1.8 Ft., mos	stlv fin	e to					-52.0				
	-	$ \cdot \cdot \cdot \cdot $	medium	-grained sa	nd-size	ed quartz, little	F		3						
	-	[h	medium trace silf	to coarse-g	grainec	I sand-sized shell,									
	_	 ···	At El5	2.5 Ft., mos	stly fine	e-grained									
		l · · · h	sand-siz	ed quartz, t	trace s	hell, weak reaction	٦ŀ		4		-53.5				
	-		At El5	, 2.5Y 6/1 g 3.5 Ft., few	mediu	m-grained			<u> </u>						
	-	l∷ l	sand-siz	ed shell		-									
	_	[····]	-At El5	4.5 Ft., 2.5	r 5/1 g	ray									
	_	····									-55.5				
	-						F		5		00.0				
	-	[∵ ∵]													
		[. [∙] . [∙] .]													
	-														
	-	[::::]													
	_														
	-	$ \cdots $													
		I													

DR		100	G (Cont. Sheet)	INSTALLA							SHEET		1
				Jackso					1		OF 2	SHEETS	5
PROJEC				COORDINA					HORIZONTAL	1	RTICAL		
	ohns Coun		-	State F					NAD83	i	NAVD88		_
	ON COORDI			ELEVATIO		OFB	ORIN	G					
X = :	592,150 I	1	,082,636	-43.5 F	t.								-
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMARK	5	BLOWS/ 1 FT.	N-VALUE	
-62.4	18.9												- 1! - - - - - - - - - - - - - -
00 F	20.0							00 F					È
-63.5	20.0		NOTES: 1. USACE Jacksonville is the custo these original files. 2. Soils are field visually classified i accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIC 1 3.0/3.3 2 5.5/5.8 3 8.5/8.8 4 10.0/10.3 5 12.0/12.3 *Lab visual classification based on grouve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell <t< td=""><td>n TORY CATION</td><td></td><td></td><td></td><td>-63.5 Abbrevi</td><td>ations:</td><td></td><td></td><td></td><td></td></t<>	n TORY CATION				-63.5 Abbrevi	ations:				

			DIVISIO)N		INS	TALL			y Design	alion	VD-SJINTS	SHEET 1		٦
DRI	LLING	LOG		th Atlantic						istrict			OF 2 S		5
. PRO	JECT									E OF BIT	See	Remarks		-	1
S	St. Johns C	County F	easibility			10.	coc	RDI	NATE	SYSTEM/DA	ТОМ	HORIZONTAL	VERTICA	L	
							S	State	Plar	ne, FLE (U.	S. Ft.)	NAD83	NAVE	88	
BOR	ING DESIG	NATION		LOCATION COOR	DINATES	11.	MAN	NUFA	CTU	RER'S DESIG	INATIO			IER	
	/B-SJN15-			,	Y = 2,082,068								MANUAL HA		
					NTRACTOR FILE NO.	12.	тот	ALS	AMPI	LES	D	ISTURBED	UNDISTURBE	D (UD))
	Corps of Er		3 - CESAJ		6738-15-5453	<u> </u>						6	0		_
NAN	IE OF DRILL	LER				13.	тот	'AL N	IUMB	ER CORE BO	DXES	0			
DIR	ECTION OF	BORING		DEG. FROM	BEARING	14.	ELE	VAT	ION G	ROUND WA	TER				
\bowtie	VERTICAL INCLINED			VERTICAL		15.	DAT	E BC	ORING	;		STARTED 03-29-15	COMPLET 03-29		
. THI	CKNESS OF	OVERB	URDEN	N/A		16.	ELE	VAT	ΙΟΝ Τ	OP OF BOR	ING	-40.9 Ft.			
. DEP	TH DRILLEI	D INTO P	юск	N/A		17.				ERY FOR B		93 %			
. тот	AL DEPTH	OF BORI	NG 20).0 Ft.		18.	SIG	NATI	URE A	ND TITLE O	F INSPI	ECTOR			
ELEV.	DEPTH	LEGEND	CL	LASSIFICATION O	F MATERIALS	R	۴C.	BOX OR SAMPLE	RQD OR UD			REMARKS	BLOWS/ 1 FT.	N-VALUE	
-40.9	0.0														1
		<u> </u>		oorly-graded, mo			F								t
	E		medium-g	grained sand-siz	ed quartz, little shell, trace silt,										ŀ
	Ē.			ction with HCl, 2											I
	Ł	:•:•:		gray (SP)	lie i ei z ligiti										ł
	F														F
	-														ł
	F	$\cdot \cdot \cdot \cdot$													-
	E	••••								-43.9					
	F	l:					L	1							T
	E		At El44. sand-size	I.2 Ft., some me	dium-grained										ł
	-		34110-3120												ŀ
	È	• . • . •													t
	-	••••													ŀ
	-														ľ
	F														ŀ
	-							_		-46.9					1
	-	•••••					-	2							ŀ
	F														ľ
	F	 .∵.													ŀ
	F														ļ
	L														ŀ
	╞	$\left[\cdots \right]$		8.9 Ft., mostly fin											ŀ
	F		sand-size	ed quartz, few med shell, 2.5Y 6/	anav					-49.9					ļ
	┝	 	0.20	,	0-1	\vdash	+	3		-49.9					┦
	F						F								ļ
	Ł					L				-50.9					
	╞	ŀ⊡ſ).9 Ft., little medi	um-grained		T	4							ŀ
	È i	·.∴	sand-size												t
	┝╴														ł
	F														ļ
	F	$ \cdots $								-52.9					┠
	F	$ \cdots $		2.9 Ft., mostly fin				5							Ţ
	Ł	[:∵:]		grained sand-siz grained sand-siz											ł
	F		discontinu		<u>eu shell,</u>										ļ
	t	 													ł
	L	\downarrow	-From FL	-54 6 to -54 8 Ft	., sandy silt seam					-54.9					
														1	
	F	'.∵\	-At El54.	9 Ft., mostly fin	ne-grained			6		01.0					1
	-		At El54. sand-size	4.9 Ft., mostly fin ed quartz, few fin ed shell, trace sil	ne-grained ne-grained		┢	6		01.0]

DRILLIN	G LO	G (Cont. Sheet)	Jackso		Dietr	ict		SHEET OF 2	2 SHEETS
PROJECT		- •						VERTICAL	SUFEIS
St. Johns C	ounty Fe	asibility	State F				I	NAVD88	
			ELEVATIO					•	
X = 591,300) Y = 2	2,082,068	-40.9 F	t.					
ELEV. DEPT	LEGEND	CLASSIFICATION OF MATER	IALS	RÉC.	BOX OR SAMPLE	RQD OR UD	REMA	ARKS 31	N-VALUE
-59.5 18.6		SAND, silty, mostly fine-grained s quartz, little silt, few fine-grained s shell, weak reaction with HCl, 2.5 (SM) At El57.6 Ft., little sand to grave shell At El58.2 Ft., few fine-grained s shell	sand-sized Y 5/1 gray el-sized						
-60.9 20.0							-60.9		
		ID DEPTH CLASSI 1 3.0/3.3 S 2 6.0/6.3 S 3 9.0/9.3 S 4 10.0/10.3 S 5 12.0/12.3 S	ed in RATORY FICATION SP* SP* SP* SP* SP* SP* SP* SP*				Abbreviations:		

			DIVISIO	N		INS	TALLA			g Designatio		SHEET 1	
DRI	LLING	LOG		h Atlantic			lackso			istrict		OF 2 SI	
. PRO						9.	SIZE A	AND	ТҮР	E OF BIT S	ee Remarks		
S	St. Johns C	county	Feasibility			10.				SYSTEM/DATUM	1	VERTICAL	
										ne, FLE (U.S. F		NAVD	
	ING DESIG /B-SJN15-/			LOCATION COOR	Y = 2,084,012	11.	MAN	UFA	CTU	RER'S DESIGNAT		AUTO HAMM	
	LLING AGEN	-	i		TTRACTOR FILE NO.								
C	Corps of Er	ngineer	s - CESAJ	6	6738-15-5453	12.	тоти	AL S	AMPI	LES	5	0	. ,
. NAM	IE OF DRILL	ER		•		13.	тоти	AL N	UMB	ER CORE BOXES	5 0		
			_			14.	ELEV		ON G	ROUND WATER			
	ECTION OF	BORING	j	DEG. FROM VERTICAL	BEARING						STARTED	COMPLET	ED
	INCLINED					15.	DATE	Е ВО	RING	5	03-30-15	03-30-	15
. тніс	CKNESS OF	OVERE	BURDEN	N/A		16.	ELEV	/ATI	ON T	OP OF BORING	-47.7 Ft.		
. DEP	TH DRILLE		ROCK	N/A		17.	тоти	AL R	ECO\	ERY FOR BORI	NG 83 %		
						18.	SIGN	ΑΤ	JRE A	ND TITLE OF IN	SPECTOR		
. тот	AL DEPTH	OF BOR	ING 20.	.0 Ft.			,						
ELEV.	DEPTH	LEGEND	CL	ASSIFICATION O	F MATERIALS	R	ес. од	SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
-47.7	0.0					Τ	Τ	Τ					
41.1		<u></u>	SAND, po	orly-graded, mo	ostly fine-grained								
	-			d quartz, little m	edium-grained t, strong reaction								
	-	· · · · ·		N 4/ dark gray									
	-												
	-									-49.7			
	-	l∵:⊦	≻At FL -50	0 Ft 2 5Y 6/2	ight brownish gray			1					
	F	$ \cdot \cdot \cdot \rangle$, u El. 00.	010,2010,21	ight brownion gray								
	-									-51.2			
	-		∽At El51.	2 Ft., few medi	um-grained			2		-01.2			
	-	· . · . ·	sand-size	d shell									
	-	[···]		1 Ft., mostly fin									
	<u> </u>	$\cdot \cdot \cdot \cdot$	medium-g	rained sand-siz	ed quartz, little d sand-sized shell								
	È i		mealann a	o coarse-graine									
	-					L				-53.7			
	-							3					
	-		sand-size	1 Ft., mostly fin d quartz, few m	edium-grained								
	F		sand-size	d shell, disconti	nue silt					-55.2			
	È i					F		4		00.2			
	F	∴·	∽At EL -55	8 Ft few fine-c	rained sand-sized								
	ŀ		shell, trac	e silt, weak read	ction with HCI,								
	F		10Y 5/1 g	reenish gray		┝	-+	5		-56.7			
	È							-					
	<u>F</u>												
	F	$ \cdots $											
	F												
	F	$ \cdot \cdot \cdot $											
	È i	[···]											
	F	· · ·											
	ŀ	····											
	F												
	È												
	F	[:·:·]											
	F												
	È												
		<u> </u>									Continued		

PROJECT St. Johns LOCATION C X = 592,4	s Count COORDIN 411	y Fea IATES	5	Jackso COORDINA State F ELEVATIO -47.7 F	ATE SY Plane, N TOP	(STEN FLE	//DAT (U.S.		HORIZONTAL NAD83	1	RTICAL	SHEET
St. Johns	COORDIN 411	iates (= 2,	5 084,012	State F ELEVATIO -47.7 F	Plane, N TOF	FLE	(U.S.		1	1		3
LOCATION CC X = 592,4 ELEV. DE	COORDIN 411	iates (= 2,	5 084,012	ELEVATIO -47.7 F	N ТОР			. Fl.)	I INADOS	1	INAVDO	>
X = 592,4	411) ЕРТН	(= 2,	084,012	-47.7 F		OFB		_	•	•		
ELEV. DE	ЕРТН	1			t.		ORIN	G				
			CLASSIFICATION OF MATERIA									
-64.3 16	6.6			L3	RÉC.	BOX OR SAMPLE	RQD OR UD		REMARI	(S	BLOWS/	T FI.
		· · · · · · · ·										
-67.7 20	0.0				<u> </u>			-67.7				
			NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIC 1 2.0/2.3 SP 2 3.5/3.8 SP 3 6.0/6.3 SP 4 7.5/7.8 SP 5 9.0/9.3 SP *Lab visual classification based on g curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 5 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell	in TORY CATION * * * *				Abbrev	ations:			

			DIVISIO	N		I.	NST	ALLAT		g Deolgrie			SHEET 1	
DRI	LLING	LOG		h Atlantic		!'		acksor		vistrict			DF 2 SH	IEETS
1. PRO	JECT		0000							E OF BIT	See Remarks			
s	St. Johns C	ounty F	easibility							SYSTEM/DA			ERTICAL	
		,	,					Sta	te Plai	ne, FLE (U.S	S. Ft.) NAD83		NAVD8	88
2. BOR	ING DESIGI	NATION			OORDINATES	1	1.			, (NATION OF DRILL		O HAMM	
V	/B-SJN15-	46		X = 591,	577 Y = 2,083	3,467							NUAL HAN	IMER
	LING AGEN				CONTRACTOR F	14	2.	TOTAL	SAMP	LES	DISTURBED		ISTURBED) (UD)
	Corps of En	0	s - CESAJ		6738-15-54	53			UAIII		6	0		
4. NAN	IE OF DRILL	.ER				1	3.	TOTAL	NUMB	ER CORE BO	XES 0			
		POPING		DEG. FRO	M	1	4.	ELEVA		ROUND WAT	ER			
\boxtimes	VERTICAL INCLINED	BORING		VERTICAL			5.	DATE I	BORING	3	STARTED 03-30-1		OMPLETE	
	CKNESS OF	OVERB	URDEN	N/A			6.	ELEVA	τιοη τ	OP OF BORIN	1		00.00	
7. DEP	TH DRILLED			√A		1	7.	TOTAL	RECO	VERY FOR BO	RING 85 %			
						[1	8.	SIGNA	TURE A	AND TITLE OF	INSPECTOR			
8. ТОТ	AL DEPTH (DF BORI	NG 20	.0 Ft.				,						
ELEV.	DEPTH	LEGEND	CL	ASSIFICATI	ON OF MATERIAL	.S	RÉ	Sow or of the second se	RQD OR UD		REMARKS	5	BLOWS/ 1 FT.	N-VALUE
40.0														
-40.2	0.0	$\left\lfloor \cdots \right\rfloor$	SAND no	orly-grade	d, mostly fine to		-	\vdash	-	1				
			medium-g	rained san	d-sized quartz, s									
	F	Ì	medium-g	rained san	d-sized shell, sti	rong								
	-		reaction w	/ith HCI, 2.	5Y 6/1 gray (SP	')								
	-													
	-													
	-													
	-									-43.2				
	-						-	1	-	-43.2				
	-							<u> </u>	1					
	-													
	-	l. · . · .												
	-													
	_													
	-	I∷⊦k	-At FL -45	6 Ft most	ly fine-grained									
	-		sand-size	d quartz, lit	tle medium-grai	ned				-46.2				
	-		sand-size	d shell, trac	e silt, weak rea	ction		2]					
	E	····	with HCI,	2.5Y 6/2 lig	ht brownish gra	у								
	F	[⊡]												
	Ľ													
	F									-48.2				
	-			2 Ft., most				3						1
	F		medium-g	rained san	d-sized quartz, f	ew								
	Ē.		meaium-g	named san	d-sized shell									
	Ł	$ \cdot \cdot \cdot $												
	-									-50.2				
	<u>-</u>							4	1	-00.2				
	F								1					
	-													
	F	ŀ…k		5 Et fourf	ine to medium-g	rained								
	Ľ	[:::]	sand-size	d shell, 2.5	Y 6/1 grav	nanieu				52.0				
	L	1 · · L			ly fine-grained		\vdash	5	-	-52.2				-
	F	Ik	sand-size	d quartz, tra	ace shell			F	1					
	F	· <i>∴</i> `	At El52.	7 Ft., few f	ine-grained sand	d-sized								
	F		shell							53.7				
Б Л Л	12.0						\vdash	6	-	-53.7				\vdash
-54.1	- 13.9		SAND sil	tv. mostlv f	ine-grained sand	d-sized	-	F	1					
	Ł		quartz, litt	le silt, trace	e shell, weak rea	action								
	F	┨┼┼┼┨	with HCI,	2.5Y 5/1 gr	ay (SM)									
	DM 192						_		_	I	(Continue			1

		1.00	Cont Shoot)	INSTALLA	TION			<u> </u>			SHEET	2	٦
DR	LLING	LUC	G (Cont. Sheet)	Jackso	nville	Distr	ict				OF 2	SHEETS	s
PROJEC				COORDINA					HORIZONTAL		RTICAL		
	ohns Coun			State F					NAD83		NAVD88		
	ON COORDI			ELEVATIO		OFB	ORIN	G					
X = {	591,577	1	,083,467	-40.2 F	t.		I						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMARKS	6	BLOWS/ 1 FT.	N-VALUE	
-57.1	16.9												- 13
-60.2	20.0							-60.2					
			NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified in accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIC 1 3.0/3.3 SP ¹ 2 6.0/6.3 SP ² 3 8.0/8.3 SP ² 4 10.0/10.3 SP ² 5 12.0/12.3 SP ³ 6 13.5/13.8 SP ³ *Lab visual classification based on g curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell 6 Percent Visual Shell 7 Percent Visual Shell 8 Percent Visual Shell 9 Perce	n TORY CATION				Abbrevi	ations:				

											g Designation	VB-SJN	115-4	7	
DRIL	LING	LOG	DIVISIO								intriot			SHEET 1	
I. PROJ			Sou	th Atlantic							istrict	Remarks		OF 2 S	HEETS
	. Johns Co	ountv	Feasibility								SYSTEM/DATUM	HORIZON	TAL	VERTICAL	
01		Janty	Sasisinty								ne, FLE (U.S. Ft.)	1		NAVD	
2. BORI	NG DESIGN		ı i	LOCATION	COORD	INATES	11.				RER'S DESIGNATION		-		
	3-SJN15-4			X = 590	,732	Y = 2,082,887								IANUAL HA	MMER
	LING AGEN				1	RACTOR FILE NO.	12.	тота	L SA	MPI	LES	STURBED	U	NDISTURBE	D (UD)
	orps of English		s - CESAJ	J	6 <i>1</i>	38-15-5453						5	1	0	
NAME		LK					13.	ΤΟΤΑ	LNU	MB	ER CORE BOXES	0			
5. DIREG		BORING	;	DEG. FRO	м	BEARING	14.	ELEV	ATIO	N G	ROUND WATER				
				VERTICA	L		15.	DATE	BOR	ING	6	STARTED		COMPLET	
	NCLINED			<u> </u>								03-29-	-15	03-29-	15
6. THICI	KNESS OF	OVERE	URDEN	N/A			L				OP OF BORING	-42.8 Ft.			
7. DEPT	H DRILLED	INTO	ROCK	N/A							VERY FOR BORING	84 %			
в. тота	L DEPTH O	F BOR	ING 2(0.0 Ft.			1 10.	SIGN	10		ND TITLE OF INSPE	CIUR			
							┶┯╴	, ,	ш					7	ш
ELEV.	DEPTH	LEGEND	CI	LASSIFICAT	ION OF	MATERIALS	R		TAMPS	QD DR JD		REMARI	KS	BLOWS/ 1 FT.	N-VALUE
-42.8	0.0	$\left \cdots \right $	SAND. pr	oorly-grade	d, mos	tly fine to	-	\vdash	+						
F			medium-g	grained sar	nd-sized	d quartz, little d shell, weak									
F	-					light gray (SP)									
È		$[\cdot]$,		5 - 5 - 5 (- 7									
Ŀ	_														
F	_	••••													
F															
F	-	••••									46.2				
F		ŀ	∽At El46	6.2 Ft., 2.5Y	′ 6/1 gr	ау					-46.3				
F	-	•••••													
F															
Ę	_	l∷∴ŀ	From El	-47 7 to -47	7 9 Ft	sand seam									
Ŀ		••••		47.7 10 47											
ŀ															
F	-	•.•.•													
Ę		[⊡]									-49.8				
F	-	ŀ∵ŀ	∽At El49	9.8 Ft., few	mediun	n-grained	\vdash		2		 3.0				-
ŀ		l∷r	sand-size	ed shell, tra	ce silt	shell seam									
F	-	····		50.2 i0 -5i	J.O I L.,	Shell Scall									
F		·.··													
Ę	-														
E		$ \cdots $													
F		[· · ·]													
F	-	$ \cdots $									-53.3				
Ę		l∷ i		3.3 Ft., mos	tly fine-	-grained	F	1	3						
E	-	[]	sand-size	ed quartz											
F		·													
F	-	[···]													
Ę		l∷l		O C1 11441	m = 4 ¹	m to									
ŀ	_	····		5.3 Ft., little rained sand		m to shell, strong					-55.8				
F		[·…]	reaction	with HCI, 2.	5Y 5/1	gray	Γ	4	-						
Ę		$ \dots $													
F	-	[···]													
-57.4	14.6			oorly-grade	d with	silt mostly	\dashv								
F		I.	3λινυ, ρι	oony-grade		siit, mostly					-57.8	(Continu			

DRILLING	LOC	G (Cont. Sheet)	INSTALLA		Dist	int		SHEET	
PROJECT		. ,	Jackso COORDIN					OF 2 S	PHEEIS
St. Johns Cou	ntv Fe	asibility	State F					NAVD88	
			ELEVATIO				, .	100000	
X = 590,732	Y = 2	,082,887	-42.8 F						
ELEV. DEPTH	LEGEND	CLASSIFICATION OF MATER	ALS	RÉC.	BOX OR SAMPLE	RQD OR UD	REMA	RKS /SMO 18	N-VALUE
-58.9 16.1 -59.6 16.8		fine-grained sand-sized quartz, litt medium-grained sand-sized shell, strong reaction with HCl, 2.5Y 5/1 (SP-SM) From El58.7 to -58.9 Ft., shell s SAND, silty, mostly sand to gravel shell, little fine-grained sand-sized weak reaction with HCl, 2.5Y 5/1 g	few silt, gray eam / -sized quartz, /	/	5				
-62.8 20.0			<u>, ay (0m) /</u>				-62.8		
		ID DEPTH CLASSIF 1 3.5/3.8 S 2 7.0/7.3 S 3 10.5/10.8 S 4 13.0/13.3 S	d in ATORY ICATION P* P* P* P* SM*				Abbreviations:		

			DIVISIO	N		INS	TALLA			g Designate		SHEET 1	
DRI	LLING	LOG	Sout	th Atlantic		.	Jacks	onvil	le Di	istrict		OF 2 S	HEETS
1. PRO	JECT									-	ee Remarks		
S	st. Johns C	county	Feasibility			10.	C00	RDIN	IATE	SYSTEM/DATUN	HORIZONTAL	VERTICAL	
						<u> </u>				ne, FLE (U.S. F	,	NAVD	
	ING DESIGI B-SJN15-			LOCATION COOR	DINATES Y = 2,082,392	11.	MAN	UFAG	CTUF	RER'S DESIGNAT		AUTO HAMM	
	LING AGEN	-	i		T = 2,002,392								
C	orps of Er	nginee	rs - CESAJ	I	738-15-5453	12.	тот	AL SA	AMPL	LES	5	0	(-)
. NAN	E OF DRILL	.ER		·		13.	тот		UMB	ER CORE BOXES	0		
				-		14.	ELE\		ON G	ROUND WATER			
	ECTION OF	BORIN	G	DEG. FROM VERTICAL	BEARING	<u> </u>					STARTED	COMPLET	ED
	INCLINED					15.	DATI	BO	RING	•	03-29-15	03-29-	15
. тніс	KNESS OF	OVER	BURDEN	N/A	•	16.	ELE\		ON T	OP OF BORING	-42.2 Ft.		
			BOOK N			17.	тот	AL RE	ECO\	ERY FOR BORIN	IG 95 %		
. DEP	TH DRILLEI		RUCK	N/A		18.	SIGN	ATU	RE A	ND TITLE OF IN			
. тот	AL DEPTH	OF BOP	RING 20	.0 Ft.			,						
ELEV.	DEPTH	LEGEND	CL	ASSIFICATION O	F MATERIALS	R	žc. 2	SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
40.0	0.0												Т
42.2	0.0	.	SAND no	orly-graded, mc	stly fine to		⊢	+					
	-		medium-g	grained sand-siz	ed quartz, some								
	-	••••		edium-grained sa action with HCI, 2									
	-	\vdots		gray (SP)	Liot of Linght								
	-	····											
	-												
	-	\vdots											
	_												
	-	• • •		.7 Ft., some me	dium to	⊢		1		-45.7			
	-			ained sand-size				-					
	-	••••											
	-												
	-	• • • •											
	-	• • • •	∽At El47.	.8 Ft., little medi	um-grained								
	⊨ -			d shell, 2.5Y 7/2									
	F		∽At El48.	.7 Ft., 2.5Y 6/2 I	ight brownish gray								
	-	[:···]		, , , ,		┝				-49.2			+
	-			-49.6 to -49.8 Ft	silt seam		⊢	2					
	-	· · ·			., on ocam								
	-									-50.7			
	-		At El50.	.7 Ft., few mediu	um-grained			3					1
	<u>-</u>		∖ sand-size ∖ with HCl	a snell, trace sil	t, weak reaction								
			^L At El51.	.2 Ft., mostly fin	e-grained								
	- 	$ \cdot \cdot \cdot \cdot $	sand-size gray	d quartz, trace s	shell, 2.5Y 7/1 light								
	-	[…]	9.49										
	- 									-53.2			
	-	····	∽At El53.	.4 Ft., 2.5Y 6/1 g	gray		F	4					
	-												
	-			1 Et fourfing to	medium arginged								
			Sand-size	.4 rt., iew line to d shell	o medium-grained								
					rained sand-sized								
	-		shell, 2.5	Y 5/1 gray		Ļ				-55.7			⊢
	-	[····]	-At El55.	.7 Ft., trace silt			⊢	5					
	- -	l. [∙] [∙] .											
	-												
		I• • •											

DRI	LLING	LOC	G (Cont. Sheet)	INSTALLA				<u>y - ee.y</u>			SHEET 2		1
				Jackso					1		OF 2 5	HEETS	
PROJEC				COORDINA					HORIZONTAL	1	RTICAL		
	ohns Coun			State F					NAD83	i	NAVD88		
	ON COORDI			ELEVATIO		OFE	ORIN	G					
X = 5	589,867		,082,392	-42.2 F	t.								-
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	-S	RÉC.	BOX OR SAMPLE	RQD OR UD		REMARKS	5	BLOWS/ 1 FT.	N-VALUE	
													- 15 - - - - - - - - - - - - -
-61.2	19.0	••••			1								-
-62.2	20.0		NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified in accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE LABORA DEPTH CLASSIFIC 1 3.5/3.8 2 7.0/7.3 3 8.5/8.8 2 7.0/7.3 3 8.5/8.8 SP ³ 3.5/13.8 5 13.5/13.8 SP ⁴ 11.0/11.3 SP ⁴ 12.0/11.3 *Lab visual classification based on generative 4 Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Per	n TORY CATION				-62.2 Abbrevi	ations:				
	102 MOC												- - - - 35

			DIVISIO	N		INS	TALI			g Designatio		SHEET 1	
DRI	LLING	LOG		h Atlantic		-				istrict		OF 2 SH	IEETS
1. PRO	JECT		•			9.	SIZE	AND	ТҮРІ	E OF BIT Se	e Remarks	•	
S	it. Johns C	ounty	Feasibility			10.				SYSTEM/DATUM	1	VERTICAL	
						\square				ne, FLE (U.S. Ft		NAVD8	
	ING DESIGI		1			11.	MA	NUF	сти	RER'S DESIGNAT			
	B-SJN15-			,	Y = 2,084,849 NTRACTOR FILE NO.							MANUAL HAN	
			s - CESAJ		6738-15-5453	12.	то	TAL S	SAMPI	LES	7	0	(02)
	E OF DRILL	0		I		13.	то		UMB	ER CORE BOXES	0	-	
						14.				ROUND WATER	-		
	CTION OF	BORING	3	DEG. FROM	BEARING	<u> </u>				NOOND WATER	STARTED		D
	INCLINED			-		15.	DA	TE BO	ORING	5	03-30-15	03-30-1	
6. THIC	KNESS OF	OVERE	BURDEN	N/A	1	16.	ELE	EVAT		OP OF BORING	-42.0 Ft.	1	
						17.	то	TAL F	RECO	ERY FOR BORIN			
r. DEP) INTO	RUCK	I/A		18.				ND TITLE OF INS			
В. ТОТА	AL DEPTH O	OF BOR	ING 20.	.0 Ft.				,					
ELEV.	DEPTH	LEGEND	CL	ASSIFICATION C	OF MATERIALS	R	EC.	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
40.0	0.0												
-42.0	0.0		SAND, po	orly-graded, m	ostly fine to	-	ŀ						
ŀ	-	····	medium-g	rained sand-siz	zed quartz, little zed shell, trace silt,								
	-				2.5Y 6/1 gray (SP								
	_		ou ong i ou		, g.u., (e.	′							
ŀ	-	l.⁺.⁺.											
	-												
ŀ	_	 ∷ :											
ŀ	-					-		1		-45.0			
	-	$ \cdots $					ŀ	1					
ŀ	-	::::l											
ŀ	-												
	-	$ \cdots $											
	-	:∵:		170t- 171-									
ŀ	-	· · ·	-From El	47.2 to -47.4 F	t., siit seam								
	-					┝	-+	0		-48.0			
	-	∷ :					ŀ	2					
ŀ	_	$ \cdots $											
	-	· · · ·											
	-	::::								50.0			
ŀ	-	ŀ⊡ł	∽At El50.	0 Ft., mostly fir	ne-grained	⊢		3		-50.0			
ŀ	-		sand-sized	d quartz	-		1						
	-	.::	-From El	50.3 to -50.5 F	., snell seam								
ŀ	-	$ \cdot \cdot \cdot $											
	-									-52.0			
	-	.∴ĥ		0 Ft., mostly fir				4					
ŀ	-	$ \cdots $	sand to an	rained sand-siz	zed quartz, little ll								
ł			From El	52.1 to -52.4 F	t., shell seam								
ļ	-												
ŀ	-	$ \cdot\cdot\cdot $								-54.0			
ł	_	[]	At El54.	0 Ft., few medi d shell, weak re	um-grained eaction with HCl		ŀ	5					
ļ	-		30110-31200	a onon, weak it									
ŀ		$ \cdot \cdot \cdot $											
ŀ	-	[:]											
	-			O Et trace at	, II	F	$ \downarrow$			-56.0			
ŀ	-	$ \cdots $	-ALEI50.	0 Ft., trace she	:11		ŀ	6					
ŀ	-	·∴·											
	2014 402	<u></u>									(Continued)		i i

DRI	LLING	LOC	G (Cont. Sheet)	INSTALLA		D: 1		3 3			SHEET		1
PROJEC				Jackso COORDINA						. VE	RTICAL	SHEETS	
	ohns Coun	itv Fe	asibility	State F					NAD83	1	NAVD88		
	ON COORDI		•	ELEVATIO					10/1000				
	591,912			-42.0 F		••• -		-					
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMARK	S	BLOWS/	N-VALUE	
-58.0	16.0	••••						-58.0					- 15 - -
			SAND, poorly-graded with silt, most fine-grained sand-sized quartz, few shell, weak reaction with HCl, 2.5Y ((SP-SM) At El58.4 Ft., 2.5Y 5/1 gray	silt, trace		7		-30.0					
-61.5 -62.0	19.5 20.0	• ++			{			-62.0					E
			NOTES: 1. USACE Jacksonville is the custo these original files. 2. Soils are field visually classified i accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIC 1 3.0/3.3 2 6.0/6.3 3 8.0/8.3 4 10.0/10.3 5 12.0/12.3 5 12.0/12.3 6 14.0/14.3 7 16.0/16.3 8 14.0/14.3 9 6 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell 7 Percent Visual Shell 6	n TORY CATION				Abbrevia	ations:				
													- - - - - - - - - - - - - - - - - - -

			DIVISIO	N		INS	STALL			y Designatio			1
DRI	LLING	LOG		h Atlantic						istrict			SHEETS
1. PRO	JECT					_					ee Remarks		
S	St. Johns C	county	easibility			10.				SYSTEM/DATUM		L VERTIC	AL
										ne, FLE (U.S. Fi	,	NAV	
	ING DESIGI /B-SJN15-			LOCATION CO	ORDINATES 35 Y = 2,084,311	11.	. MA	NUF	ACTU	RER'S DESIGNAT		AUTO HAM	
			I		CONTRACTOR FILE NO								
	Corps of En	0	s - CESAJ	1	6738-15-5453	12.	. TO I	TAL S	SAMPI	LES	6	0	
4. NAN	IE OF DRILL	.ER				13.	. то	TAL I	NUMB	ER CORE BOXES	0		
		BODIN		DEG. FROM	BEARING	- 14.	. ELE	VAT	ION G	ROUND WATER			
\bowtie	VERTICAL INCLINED	BORIN	•	VERTICAL		15.	. DA1	TE B(ORING	6	STARTED 03-30-15	COMPLE	
6. THI	CKNESS OF	OVERE	URDEN	N/A	•	16.	. ELE	VAT	ION T	OP OF BORING	-41.7 Ft.	•	
				٨/A		17.	. то	TAL I	RECO	ERY FOR BORIN	IG 97 %		
						- 18.	. SIG	NAT	URE A	ND TITLE OF INS	SPECTOR		
8. ТОТ	AL DEPTH (OF BOR	ING 20.	.0 Ft.			,						
ELEV.	DEPTH	LEGEND	CL	ASSIFICATION	N OF MATERIALS		RÉC.	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/	N-VALUE
A 4 -7	0.0												
-41.7	0.0		SAND, po	orly-graded,	mostly fine to		ŀ						
	╞		medium-g	rained sand-	sized quartz, little								
	-				sized shell, trace silt, Cl, 2.5Y 5/1 gray (SF								
	Ł	\vdots	outoing too			′							
	F												
	-												
	-												
	-					F		_		-44.7			
	E						ŀ	1					
	-	$\cdot \cdot \cdot \cdot$											
	-												
	-	l.∴⊦	∽At El46.	7 Ft., 2.5Y 6	/1 grav								
	F			-,	5-5								
	-									-47.7			
	F							2					
	F												
	F	$ \cdots $											
	F	[····]											
	F	¦ .	From El	49.5 to -49.7	Ft., shell seam								
	ļ 🗌				edium-grained 7/1 light gray								
	Ł		54114 0120	2 5HON, 2.01						-50.7			
	ŀ					Γ		3					
	ļ 🗌												
	F	[:·:·]											
	╞												
	È.												
	F	[····]											
	╞	[]											
	F	ŀ⊡ł	∽At El53	8 Ft., mostly	fine-grained					54.0			
	ŀ	[····]	sand-size	d quartz, trac	e shell, weak reactio	n		4		-54.2			
	F	[]	with HCI,	2.5Y 7/1 light	t gray		ŀ						
	E												
	ŀ	$ \cdots $											
	F									56.0			
	ŀ	.∵.ŀ	-At El56	2 Ft., few me	edium-grained	┝		5		-56.2			
	<u> </u>		00.	,				<u> </u>			Continue	0	
											(O		

DRI	LLING	LOC	G (Cont. Sheet)	INSTALLA Jackso		Dietr	ict			SHEE OF 2	T 2 Sheets
PROJEC			-					UM	HORIZONTAL		
	ohns Cour	ty Fe	asibility	State F					NAD83	NAVD	
OCATIO	ON COORDI	NATE	S	ELEVATIO	N ТОР	OF B	ORIN	G			
X = 5	591,035	Y = 2	,084,311	-41.7 F	t.						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMAR	KS	N-VALUE
-57.7	16.0	••••	Sand-sized shell At El56.4 Ft., 2.5Y 5/1 gray								
			SAND, poorly-graded with silt, most fine-grained sand-sized quartz, few medium-grained sand-sized shell, fe weak reaction with HCI, 2.5Y 5/1 gr (SP-SM)	ew silt,		6		-58.2			
-61.0	19.3	ŀ.									
-61.7	20.0	-						-61.7 Abbrevi			
			NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFI 1 3.0/3.3 SP 2 6.0/6.3 3 9.0/9.3 4 12.5/12.8 5 14.5/14.8 5 14.5/14.8 6 16.5/16.8 SP-S *Lab visual classification based on fourve 4. Additional Laboratory Testing 1 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell 6 Percent Visual Shell <td>in TORY CATION * * * * * *</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	in TORY CATION * * * * * *							

			DIVISIO	N		INST	TALL/			g Designatio		SHEET 1	
DRI	LLING	LOG		h Atlantic		-				istrict		OF 2 SH	IEETS
. PRO	JECT					9. 3	SIZE	AND	ТҮРІ	E OF BIT Se	ee Remarks		
S	St. Johns C	ounty l	Feasibility			10.	C00	RDI	NATE	SYSTEM/DATUM	HORIZONTAL	VERTICAL	
										ne, FLE (U.S. Ft	/	NAVD8	88
			I I			11.	MAN	UFA	CTU	RER'S DESIGNAT			
	B-SJN15-	-			Y = 2,083,725] MANUAL HAN	
	Corps of En		s - CESAJ	1	6738-15-5453	12.	тот	AL S	AMPI	LES	7		(00)
	E OF DRILL	0	0 0 2 0 / 10	1		13.	тот		UMB	ER CORE BOXES			
											0		
		BORING	6	DEG. FROM	BEARING	<u> </u>	ELE			ROUND WATER	STARTED		
	VERTICAL					15.	DAT	Е ВС	ORING)	03-29-15	03-29-1	
тніс	CKNESS OF	OVERB		N/A		16.	ELE			OP OF BORING	-41.2 Ft.	1	-
						<u> </u>				VERY FOR BORIN			
. DEP	TH DRILLED) INTO	ROCK	N/A						ND TITLE OF INS			
тот	AL DEPTH C	OF BOR	ING 20.	.0 Ft.									
ELEV.	DEPTH	LEGEND	CL	ASSIFICATION C	OF MATERIALS	R	ec.	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
41.2	0.0		SAND po	orly-graded, m	ostly fine to	_	⊢	_					
	-		medium-g	rained sand-siz	zed quartz, little								
	-				zed shell, strong /2 light gray (SP)								
	-	•••••	Teaction w	///////01, 2.51 /	/2 light gray (3F)								
	E .												
	-												
	-	•••••											
	<u>-</u>							_		-44.2			
	Ł						⊢	1					
	-	$\cdot \cdot \cdot \cdot$											
	-												
	L												
	-												
	-												
	-	ŀ∷∙Ľ	From El	46.9 to -47.2 F	t., shell seam					-47.2			
	-		∽At El47.	2 Ft., trace silt			⊢	2					
	-	••••											
	F	$ \cdots $											
	Ł	<u>[∷:</u>]											
	┝	l.∵.											
	Ę	$ \cdots $											
	F	l∷l								-50.2			
	ŀ	 .∵.[At El50. sand-sized	2 Ft., mostly fir	ne-grained		Ļ	3					
	F	$ \cdots $	30110-31280										
	F	⊡ :											
	ŀ	· · ·											
	F	$ \cdot \cdot \cdot $											
	È	[·∵:]											
	ŀ	· · ·								-53.2			
	F	·∴·[`	-At El53.	2 Ft., mostly fir	ne to			4					
	t	⊡ :	medium-g	rained sand-siz	zed quartz, few zed shell, weak								
	┝		reaction w	/ith HCl	Lou onon, would								
	Ę	$ \cdots $											
	F	[::::]											
	F												
	t	$ \cdots $								50.0			
		النشيا								-56.2	Continued		

DRILLING	LO	G (Cont. Sheet)	INSTALLAT Jackso		Diet	ict				HEET 2	HEETS
PROJECT		. ,					им	HORIZONTAL			6133nn
St. Johns Cou	nty Fe	asibility	State P					NAD83	1	VD88	
LOCATION COORE			ELEVATIO					•	•		
X = 590,201	Y = 2	,083,725	-41.2 F	t.							
ELEV. DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMAI	RKS	BLOWS/ 1 FT.	N-VALUE
-61.2 20.0		At El57.9 Ft., mostly fine-grained sand-sized quartz, few medium-grai sand-sized shell, N 7/ light gray At El58.7 Ft., 2.5Y 5/1 gray At El60.2 Ft., little medium to coarse-grained sand-sized shell From El60.3 to -60.7 Ft., shell sea NOTES: 1. USACE Jacksonville is the custo these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIO 1 3.0/3.3 SP 2 6.0/6.3 SP 3 9.0/9.3 SP 4 12.0/12.3 SP 5 15.0/15.3 SP 6 17.0/17.3 SP 7 19.0/19.3 SP *Lab visual classification based on g curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell 7 Percent Visual Shell 8 Percent Visual Shell 9 Percent Visual Shell 1 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 7 Percent Visual Shell 8 Percent Visual Shell 9 Percent Visua	am odian for in TTORY CATION * * * * *		835 6 7		58.2 60.2 61.2 Abbrevia	ations:			

			DIVISIO	N		INS	TALL			y Designatio			ET 1	
DRI	LLING	LOG		h Atlantic						istrict			2 SHEET	rs
1. PRO	JECT					9.	SIZE	AND) ТҮРІ	e of bit S	See Remarks			
5	St. Johns C	county	Feasibility			10.	COC	ORDI	NATE	SYSTEM/DATU	M HORIZONTA	L VERT	ICAL	
										ne, FLE (U.S. F	/		AVD88	
	NING DESIGI		۱ <u>۱</u>	X = 589,320		11.	MAI	NUF	ACTUI	RER'S DESIGNAT		АUTO Н	AMMER L HAMMEI	R
		-	<u> </u>	,	NTRACTOR FILE NO.							_	JRBED (UI	
		0	s - CESAJ		6738-15-5453	12.	TOT	TAL S	SAMPI	LES	7	0		
4. NAN	IE OF DRILL	.ER				13.	тот	AL I	NUMB	ER CORE BOXES	s ()			
5 DIR		BORIN	<u>.</u>	DEG. FROM	BEARING	14.	ELE	VAT	ION G	ROUND WATER				
	VERTICAL		-	VERTICAL		15.	DAT	E B	ORING)	STARTED 03-29-15		PLETED 3-29-15	
6. THI	CKNESS OF	OVER	BURDEN	N/A		16.	ELE	VAT	ION T	OP OF BORING	-41.9 Ft.			
7. DEP				N/A		17.	тот	AL I	RECO	VERY FOR BORI	NG 83 %			
	AL DEPTH			.0 Ft.		18.	SIG	NAT	URE A	ND TITLE OF IN	ISPECTOR			
ELEV.	DEPTH	LEGEND	CL	ASSIFICATION (DF MATERIALS	F	، ۴ሮ.	BOX OR SAMPLE	RQD OR UD		REMARKS	5	BLOWS/ 1 FT. N-VALUE	
-41.9	0.0					╡	$\neg \uparrow$							1
-41.9	L 0.0		SAND, po	orly-graded, m	ostly fine to		ŀ							F
	E	$ \cdots $	medium-g	rained sand-si	zed quartz, few zed shell, weak									┠
	F	••••			6/2 light brownish									F
	-	· · · ·	gray (SP)		Ū									F
	<u>-</u>									-43.9				-
	-	••••					-	1						-
	F													F
	F													
	-													ŀ
	-			9 Ft., trace silt				2		-45.9				_
		••••	-At LI45.	9 T L., L'ACE SIL			ŀ	2						Ę
	-		∽At FL -46	7 Ft little fine	to medium-grained									-
	F	$ \cdot\cdot\cdot $	sand-sized		to modiani granica									-
		••••								-47.9				Ē
	-			9 Ft., few med		F		3		-47.5				+
	F		sand-sized	d shell, discon	tinue silt									ŀ
	-													F
	-													Ē
	F	[:.:	∽At El49	7 Ft., little med	dium-grained	L				-49.9				Ŀ
	ŀ	[·…]	sand-sized		ilt, strong reaction	Γ	T	4						F
	F	$ \cdots $	with HCI											Ē
	F	[:::]												Ŀ
	E	$\left \cdots \right $												┢
	F	$ \cdots $	_∆t El _51	9 Ft., mostly fi	ne-arained	┝	-+	5		-51.9				_F
	ļ 🗌	[···]	sand-sized	d quartz, few n	nedium-grained		┝	5						Ę
	Ł				eaction with HCI									ŀ
	ŀ	$ \cdots $												F
	F	[⊡]								53.0				F
	F	:::	∽At El53.	9 Ft., mostly fi	ne to	F	-+	6		-53.9				+
	ŀ	$\left \cdots \right $	medium-g	rained sand-si	zed quartz, trace		ľ							F
	F	[⊡]	shell											Ę
	Ł	[·∵.]												Ŀ
1	╞	$ \cdots $		7 Et mooth fi	no grainod					-55.9				F
I	F	[⊡]	sand-size	7 Ft., mostly fi d quartz, 2.5Y	5/1 grav	F		7						╈
	Ł	$ \cdots $, , , =			ſ							ŀ
		I									Continuo			

DRILLING	LOC	G (Cont. Sheet)	INSTALLA Jackso		Dietr	iot			SHEET	2 SHEETS
PROJECT		- •					им	HORIZONTAL		SHEETS
St. Johns Cour	nty Fea	asibility	State F					NAD83	NAVD88	3
LOCATION COORD			ELEVATIO							
X = 589,320	Y = 2	,083,241	-41.9 F	t.						
ELEV. DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMAR	XS /SMO Ta	1 FI.
-57.9 16.0 -58.4 16.5		SAND, clayey, mostly fine-grained sand-sized quartz, some sand to gravel-sized shell, little clay, strong with HCI, 2.5Y 4/1 dark gray (SC)	reaction							
-61.9 20.0							-61.9	i di ana i		
		NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIE 1 2.0/2.3 SP 2 4.0/4.3 SP 3 6.0/6.3 SP 4 8.0/8.3 SP 5 10.0/10.3 SP 6 12.0/12.3 SP 7 14.0/14.3 SP *Lab visual classification based on g curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell 7 Percent Visu	in TORY CATION * * * * * *				Abbrev	<i>v</i> iations:		

			DIVISION	N		INC	TAL			g Designation		10-00	CUEFT 4	
DR	LLING	LOG	DIVISIO Sout	n h Atlantic				SONV		istrict			SHEET 1 OF 2 SI	
1. PRO	JECT		3001			-			-		e Remarks		- 2 3	
	St. Johns C	ountv	- easibility							SYSTEM/DATUM	HORIZONI		VERTICAL	
		y	Justiciality							ne, FLE (U.S. Ft.)			NAVD	
2. BOF	ING DESIGN		1		ORDINATES	11.				RER'S DESIGNATIO			то намм	
١	/B-SJN15-8	53		X = 591,3	70 Y = 2,085,686								NUAL HAI	MMER
	LLING AGEN				CONTRACTOR FILE NO.	12.	то	TAL S	SAMP	LES	DISTURBED	- i	ISTURBE	D (UD)
	Corps of En		s - CESAJ		6738-15-5453					i	5	i C		
4. NAN	IE OF DRILL	ER				13.	то	TAL I	NUMB	ER CORE BOXES	0			
5. DIR	ECTION OF I	BORIN		DEG. FROM	BEARING	14.	ELI	EVAT	ION G	ROUND WATER				
	VERTICAL			DEG. FROM VERTICAL		15	DA	TE D	ORINO		STARTED		COMPLET	ED
	INCLINED					1.0.					03-29-	15	03-29-	15
6. THI	CKNESS OF	OVER	URDEN	N/A		16.	EL	EVAT	ION T	OP OF BORING	-45.7 Ft.			
7. DEP	TH DRILLED			N/A		17.	то	TAL I	RECO	VERY FOR BORING	100 %			
						18.	SIG	SNAT	URE A	ND TITLE OF INSP	ECTOR			
8. ТОТ	AL DEPTH C	DF BOR	ING 20.	.0 Ft.				,						
ELEV.	DEPTH	LEGEND	CL	ASSIFICATIO	N OF MATERIALS	R	хёс.	BOX OR SAMPLE	RQD OR UD		REMARK	s	BLOWS/ 1 FT.	N-VALUE
						\neg								
-45.7	0.0	$\left\lfloor \cdot \cdot \right\rfloor$	SAND no	orly-graded	mostly fine-grained									
	F	[⊡]	sand-sized	d quartz, little	e medium-grained									
	<u>L</u>	$ \cdot \cdot \cdot $	sand-sized 2.5Y 6/1 g	d shell, stron	g reaction with HCl,									
	ŀ	····	2.010/19	jiay (SP)										
	F	[.∵.]	-At FI _47	4 Ft little fir	ne-grained sand-sized									
	-	••••	shell, wea	k reaction w	ith HCl									
	-	•••••												
	-													
	t		∽At El48.	8 Ft., trace s	silt	L				-49.2				
	F	⊡						1						
	F													
	È .	ŀ⊡ł	From El	50.3 to -50 7	' Ft., shell seams									
	F	[∵∵:]			,									
	F													
	F	ŀ∷ŀ												
	E	[:∵:[At El51. sand-sized		edium-grained									
	ŀ		3010-51280							-52.7				
	F					Γ		2						
	ļ.	l∷t	-At El53.	3 Ft., little fir	ne to medium-grained									
	F	$ \cdots $	sand-sized		0									
	ŀ	[···]												
	F	∴ i		5 Ft., 2" she										
	t i	$ \cdots $	∽At El54.	7 Ft., trace s	shell, 2.5Y 6/1 gray									
	Ł	[·…]								-55.7				
	F	$ \cdots $				Γ		3						
	ļ.	·.·.												
	F	[···]												
	ŀ	ŀ⊡l												
	F	: : ·			adium analaad	Ļ				-57.7				
	Ł	[···]	Sand-sizer	.7 Ft., few me d shell, 2.5Y	edium-grained 5/1 gray			_4						
	╞	$ \cdots $	50.10 01200											
	F	· · ·												
-59.3	- 13.6		SAND PA	orly_gradad	with silt, mostly									
	F	 :-]† 	fine-graine	ed sand-size	d quartz, few	┝		5		-59.7				
		1111						0						1
	F	. [•] ∤ 1			-sized shell, few silt, I, 2.5Y 5/1 gray				1					

DP	ILLING		G (Cont. Sheet)	INSTALLA								SHEET]
				Jackso					1			OF 2	SHE	ETS	
PROJE				COORDINA					HORIZON		1	TICAL	_		
	Johns Coun			State P					NAD8	3	i I	VAVD88	8		
				ELEVATIO		OFB	ORIN	G							
X =	591,370 I	1	,085,686	-45.7 F	t.										
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD			REMARKS		BLOWS/	1 FT.	N-VALUE	
			(SP-SM)												- 15 - - - - - - - - - - - - - - - - -
-65.7	20.0							-65.7							-20
			NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified if accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIC 1 3.5/3.8 SP 2 7.0/7.3 SP 3 10.0/10.3 SP 4 12.0/12.3 SP 5 14.0/14.3 SP-St *Lab visual classification based on g curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell 7 Percent Vi	n TORY CATION				Abbrevi	ations:						

								B	orin	g Designation	VB-SJN	115-54	4	
DRILLING LO	DG	DIVISIO		_				LATIC					SHEET 1	
		Sout	h Atlantic			-				istrict	<u> </u>		OF 2 S	HEETS
										E OF BIT See	Remarks		VERTICAI	
St. Johns Cour	πу⊢еа	asidility				^{10.}					!			
2. BORING DESIGNAT				COORD		11.				ne, FLE (U.S. Ft.) RER'S DESIGNATION		-	NAVD	
VB-SJN15-54					Y = 2,085,161							_	ANUAL HA	
3. DRILLING AGENCY	,			CONT	RACTOR FILE NO.	42	то	TAL	SAMP	D	ISTURBED	UN	DISTURBE	D (UD)
Corps of Engin		CESAJ		67	38-15-5453	12.	10	TAL			6		0	
4. NAME OF DRILLER						13.	то	TAL I	NUMB	ER CORE BOXES	0			
5. DIRECTION OF BOR	RING		DEG. FRO	M	BEARING	14.	EL	EVAT		ROUND WATER				
VERTICAL			VERTICA			15.	DA	TE B	ORINO	3	STARTED		COMPLET	
			<u>.</u>		i	<u> </u>				-	03-29-	15	03-29	-15
6. THICKNESS OF OV	ERBUR	RDEN	N/A			16.	EL	EVAT	ION T	OP OF BORING	-45.9 Ft.			
7. DEPTH DRILLED IN	TO RO	ск 🛛	I/A							VERY FOR BORING	100 %			
B. TOTAL DEPTH OF E	BORING	3 20	0 Ft.			18.	SIC	SNAT	URE A	ND TITLE OF INSPE	ECTOR			
	_	20.	011.			<u> </u>		, •••••••						ш
ELEV. DEPTH		CL	ASSIFICATI	ION OF	MATERIALS	F	RËC.	BOX OR SAMPLE	RQD OR UD		REMAR	(S	BLOWS/ 1 FT.	N-VALUE
45.0 0.0														
-45.9 0.0			orly-grade			-								
E E	. m	nedium-g	rained sar	nd-size	d quartz, little d quartz, trace sil	,								
F 1:	· st	trong rea	ction with		5Y 6/2 light	·,								
t I∷			gray (SP)		-									
Ŀ ŀ∵	∵∖⊱	rom El	47.7 to -47	7.8 Ft.,	sandy silt seam	L				-47.9				
E L	::			,	-			1						
	$\cdot \cdot \mid$													
F Li					o medium-graine	d								
t E			d shell, soi rained sar							-49.9				
	• `~A	t El49.	9 Ft., mos	tly fine-	-grained	┢		2						+
E I∷		and-sized and-sized		ttle me	dium-grained									
_ F I⊹	··· \-A	t El50.4	4 Ft., 2" sł											
F [∷			6 Ft., 2.5Y											
L I∵	÷k.			a a clis	n nunin a cl	Ļ				-51.9				_
	∷ `A sa	t El51. and-sized	9 Ft., few i d shell	mediur	n-grained			3						
E E			-											
F F	·.·													
	∷L.			Sec. 1	ma a alterna sur to t					-53.9				
	· · · · · · · · · · · · · · · · · · ·	ι⊏ι53. and-sizeα	/ ⊢เ., tew t d shell. we	ak rea	medium-grained ction with HCl,	F		4	1					1
E E	2	.5Y 5/1 g	ray											
		rom El		5.1 Ft.,	intermittent sand	у								
F İ.:	: ^{SI}	n seams												
L ∴			7 Ft., mos			Ļ		-		-55.9				_
			rained sar rained sar		d quartz, few d shell			5	1					
E E	2	.5Y 6/1 g	ray											
- F ∴			56.9 to -57 1 Ft., mos		shelly sand sean	n								
-57.9 12.0	. sa	and-sized	d quartz, fe	ew fine	-grained					-57.9				
	n sa	and-sized	d shell, 2.5	5Y 5/1 g	gray	_/†		6		01.0				+
E E			orly-grade		silt, mostly artz, few									
F 11	m	nedium-g	rained sar	nd-size	d shell, few silt,									
		eak reac SP-SM)	tion with F	101, 2.5	5Y 5/1 gray									
E E														
E Li	114													
F F														
AJ FORM 1836										1	(Continu	(0 d)		

DRILLING	LOC	G (Cont. Sheet)	INSTALLA Jackso		Dist	ict		SHEET OF 2	
ROJECT		- ,						VERTICAL	SUEE 13
St. Johns Cou	nty Fe	asibility	State I					NAVD88	
OCATION COORD			ELEVATIO					·	
X = 590,457	Y = 2	,085,161	-45.9	⁼t.					
ELEV. DEPTH	LEGEND	CLASSIFICATION OF MATERI	ALS	RÉC.	BOX OR SAMPLE	RQD OR UD	REMA	RKS SIII	N-VALUE
		At El61.4 Ft., little sand to grave shell	-sized						
		∽At El63.8 Ft., trace shell, N 5/ gr	ay						
-65.9 20.0				-			-65.9		
		NOTES: 1. USACE Jacksonville is the cust these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABOR ID DEPTH CLASSIF 1 2.0/2.3 SI 2 4.0/4.3 SI 3 6.0/6.3 SI 4 8.0/8.3 SI 5 10.0/10.3 SI 6 12.0/12.3 SP- *Lab visual classification based on curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell 6 Percent Visual Shell 7 Percent Visual Shell 8 Percent Visual Shell 9 Percent Visual Shell 1 Percent Visual Shell 1 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell 7 Percent Visual Shell 8 Percent Visual Shell 9 Percent Vi	l in ATORY ICATION 				Abbreviations:		

r			DIVISION	r	INST	ALLAT		g Designat	1011 VD-331413-	SHEET 1	—
DRI	LLING	LOG	South Atlantic			ackson		istrict		OF 2 SH	IEETS
1. PRO	JECT								See Remarks	-	
5	St. Johns C	ounty	Feasibility	1	10.	COOR	INATE	SYSTEM/DATU		VERTICAL	
						Sta	te Plai	ne, FLE (U.S.	Ft.) NAD83	NAVD8	38
2. BOR	ING DESIG	NATION	LOCATION COOR	DINATES	11.	MANU	ACTU	RER'S DESIGN	TION OF DRILL		ER
	/B-SJN15-			Y = 2,084,550						MANUAL HAN	
-	LLING AGEN		1	TRACTOR FILE NO. 0738-15-5453	12.	TOTAL	SAMP	LES	DISTURBED	UNDISTURBED) (UD)
	TE OF DRILL		rs - CESAJ 6	730-13-3433	42	TOTAL	NUMBER	ER CORE BOXI		0	
									-		
	ECTION OF	BORIN	G DEG. FROM VERTICAL	BEARING	14.	ELEVA		ROUND WATE			
	VERTICAL		VERTICAL		15.	DATE E	BORING	6	STARTED 03-29-15	03-29-1	
					40					03-29-	5
6. THI	CKNESS OF	OVER	BURDEN N/A					OP OF BORING			
7. DEP	TH DRILLEI	D INTO	ROCK N/A	-				VERY FOR BOR			
8. тот	AL DEPTH	OF BOR	20.0 Ft.		10.	JIGNA	I UKE A	ND TITLE OF I	NJFEUIUK		
ELEV.	DEPTH	LEGEND	CLASSIFICATION O	F MATERIALS	RÉ	BOX OR	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
		+			+					_	<u> </u>
-42.8	0.0	$\left \ldots \right $	CAND poorly greated as	othy fine areined							
	t		SAND, poorly-graded, mo sand-sized quartz, little m								t
	ŀ	$\left[\cdots \right]$	sand-sized shell, trace sil	t, strong reaction							
	-	• . • . •	with HCI, 2.5Y 6/1 gray (SP)							
	-										
	-				\vdash	1	-	-44.8			┼──╊
						- <u>- </u>	1				
	-	· · · ·									E
	-										
								-46.8			
	<u> </u>	••••				2	-	-40.0			┼─╂
	-		At El47.3 Ft., mostly fin	e to			1				
	-		medium-grained sand-siz								
	-	••••									
	-							-48.8			
	-		At El48.8 Ft., few mediu	um-grained		3					
	È		sand-sized shell								E
	┝	[···]									
	F	$ \cdots $									[
-50.8	8.0	<u> </u>	0.4.115					-50.8			
	F	 . 	SAND, poorly-graded with fine-grained sand-sized q			4	-				
	F	[:•]‡ 	medium-grained sand-siz	ed shell, few silt,							
	F	 :	strong reaction with HCl, 2 (SP-SM)	2.5Y 5/1 gray							[
	E	 .	From El51.0 to -51.1 Ft	., sandy silt seam							
-52.8	_ 10.0	╏┊╎┆╢	SAND, poorly-graded, mc	-	+	5	-	-52.8			┼──┡
	Ę	[⊡]	sand-sized quartz, trace s	shell, trace silt,			1				
	F	[:::]	weak reaction with HCI, 2	.5Y 5/1 gray (SP)							E
	ŀ	$\left \cdots \right $									F
	F	[···]									[
	F	[:::]									E
	ŀ	$ \cdots $									
	<u> </u>	[···]		- 4-			4	-55.8			╷╷╴┠
	Ł	$\left \cdots \right $	At El55.8 Ft., mostly fin medium-grained sand-siz			6	-				
	F	$ \cdots $	medium-grained sand-siz								
		[···]	-								[
	ŀ	[···]									
	Γ	1									

DRI		10	G (Cont. Sheet)	INSTALLA		_					SHEET 2	
		-0		Jackso					1		OF 2 S	HEETS
PROJEC		atu Eo	ooibility	COORDIN State F					HORIZONTAL NAD83	1	rtical NAVD88	
	ohns Cour on coord		•					,	i NAD65	!	INAVDoo	
			2,084,550	-42.8 F				0				
ELEV.	DEPTH	GEND	CLASSIFICATION OF MATERIA	•	RÉC.	BOX OR SAMPLE	RQD OR UD		RE	MARKS	BLOWS/ 1 FT.	N-VALUE
		Ŭ.			-	80 8					8	ż
						7	-	-58.8				
-59.6	16.8					<u> </u>						
-09.0	10.0		SAND, silty, mostly fine-grained sa		1							
			quartz, little silt, weak reaction with 2.5Y 5/1 gray (SM)	HCI,		1						
		I I+I+										
		┨┤┇┤┇	At El61.1 Ft., few fine-grained sa	nd-sized								
			shell									
-62.1	19.3		SAND, poorly-graded with silt, mos	tly fine to	-							
-62.8	20.0		medium-grained sand-sized quartz	, some				-62.8				
			reaction with HCl, N 5/ gray (SP-S		1			Abbrevi	ations:			
			NOTES:									
				odion for		1						
			 USACE Jacksonville is the cust these original files. 	odian for								
			2. Soils are field visually classified	in								
			accordance with the Unified Soils Classification System.									
			3. Laboratory Testing Results									
			SAMPLE SAMPLE LABOR/ ID DEPTH CLASSIF									
			1 2.0/2.3 SF									
			2 4.0/4.3 SF) *								
			3 6.0/6.3 SF 4 8.0/8.3 SP-5									
			5 10.0/10.3 SF									
			6 13.0/13.3 SF 7 16.0/16.3 SF) *		1						
			*Lab visual classification based on curve	gradation								
			4. Additional Laboratory Testing			1						
						1						
			1 Percent Visual Shell 2 Percent Visual Shell									
			3 Percent Visual Shell 4 Percent Visual Shell									
			5 Percent Visual Shell									
			6 Percent Visual Shell 7 Percent Visual Shell									
						1						
						1						
						1						
						1						
						1						
						1						
						1						
	DRM 183					1	I					

			DIVISIO	DN		INS	TALL			g Designatio		SHEET 1	—
DRI	LLING	LOG		th Atlantic						istrict		OF 2 SH	
1. PRO	JECT										ee Remarks	•	\neg
S	St. Johns C	ounty	Feasibility			10.	C00	RDI	NATE	SYSTEM/DATUN	HORIZONTAL	VERTICAL	
										ne, FLE (U.S. F		NAVD	38
			1	LOCATION COOR		11.	MAN	UFA	CTU	RER'S DESIGNAT			
	B-SJN15-		i		Y = 2,084,067	-] MANUAL HAN	
	Corps of En		s - CESAJ		738-15-5453	12.	тот	AL S	AMPI	LES	6	0	, (02)
	E OF DRILL	0				13.	тот		IUMB	ER CORE BOXES			
						-				ROUND WATER	•		
	ECTION OF	BORING	3	DEG. FROM VERTICAL	BEARING	<u> </u>	ELE			KOOND WATER	STARTED		=D
	INCLINED					15.	DAT	E BC	RING	5	03-29-15	03-29-	
6. THI	CKNESS OF	OVERE	BURDEN	N/A	1	16.	ELE	VAT		OP OF BORING	-40.5 Ft.	1	
						17.	тот	AL R	ECO	ERY FOR BORIN			
7. DEP	TH DRILLED	DINTO	ROCK	N/A									
8. ТОТ	AL DEPTH (OF BOR	ING 20	0.0 Ft.			,						
ELEV.	DEPTH	LEGEND	CI	LASSIFICATION O	F MATERIALS	F	rec.	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
						+							\square
-40.5	0.0	 	SAND n	oorly-graded, mo	setly fine to	_	-	_					
	F	[⊡]	medium-	grained sand-siz	ed quartz, few								
	Ł				ed shell, trace silt,								
	-	$ \cdot \cdot \cdot \cdot $	(SP)	ction with HCI, 2	.5Y 7/2 light gray								
			(0.)										
	-												
	-	·:·:•											
	-	· · · · ·								-43.5			
	-						F	1					
	F	····											
	-												
	-												
	-												
	-									-46.5			
	-							2					
	-												
	-												
	Ē.	$ \cdot \cdot \cdot \cdot $											
	È.	[⊡]											
	F	⊡]											
	F	·								-49.5			
	F	l⊡h	∽At El49	.5 Ft., mostly fin	e-grained	F		3					
	E	···.	sand-size	ed quartz			ſ						
	┝	$ \cdots $											
	Ę	[⊡]											
	F									-51.5			
	ŀ	ŀ…ſ	∽At El51	.5 Ft., trace she	ll, 2.5Y 6/1 gray	Γ		4					
	ļ	[∷:L	· · · - · -										
	F	.∵. [°]	At El52∽ sand-size		o medium-grained								
	ŀ	$ \cdot\cdot\cdot\cdot $	30110-3126										
-53.5	13.0		0.4.1.5							-53.5			Ļ
	Ł	 .	SAND, po medium-	ooriy-graded with grained sand-siz	n silt, mostly fine to ed quartz, few silt,		⊢	5					
	F	[:-]]#	few medi	um-grained sand	d-sized shell, weak								
	F	.:	reaction v	with HCI, 2.5Y 6/	1 gray (SP-SM)								
	ŀ												
-55.5	⁻ 15.0	<u>l'.//</u>]								-55.5			

DRI	LLING	LOC	G (Cont. Sheet)	INSTALLA				g Designation VB-SJI	SHEET 2	
PROJEC			- ,	Jackso COORDINA					OF 2 S	HEETS
	ohns Coun	tv Fe	asibility	State F					NAVD88	
	ON COORDI			ELEVATIO				· ·		
X = 5	588,768	Y = 2	,084,067	-40.5 F	t.	_	-			
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD	REMAR	BLOWS/ 1 FT.	N-VALUE
-56.6	16.1		SAND, poorly-graded, mostly fine to medium-grained sand-sized quartz, medium-grained sand-sized shell, tr weak reaction with HCl, 2.5Y 6/1 gra SAND, silty, mostly fine-grained sar quartz, little silt, trace shell, weak re with HCl, 2.5Y 6/1 gray (SM)	few ace silt, ay (SP) id-sized	-	6				
-59.0	18.5				-					
-60.5	20.0							-60.5		
			NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIC 1 3.0/3.3 2 6.0/6.3 3 9.0/9.3 4 11.0/11.3 5 13.0/13.3 6 15.0/15.3 8 15.0/15.3 8 *Lab visual classification based on generating 1 Percent Carbonate 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell <td>in TORY CATION </td> <td></td> <td></td> <td></td> <td>Abbreviations:</td> <td></td> <td></td>	in TORY CATION 				Abbreviations:		

			DIVISIO	ON		INS	TALL			g Designatio	II VB-SJINIS	SHEET 1	
DRI	LLING	LOG		th Atlantic						istrict		OF 2 SH	IEETS
1. PRO											ee Remarks		
S	St. Johns C	ounty	Feasibility			10.				SYSTEM/DATUM		VERTICAL	
			. ,							ne, FLE (U.S. Ft	,		
	ING DESIGN		•	LOCATION CO X = 587.70	06 Y = 2,085,832	11.	MA	NUFA	ACTU	RER'S DESIGNAT] AUTO HAMME] MANUAL HAN	
	LING AGEN				ONTRACTOR FILE NO.						DISTURBED	UNDISTURBED	
	Corps of En		s - CESAJ		6738-15-5453	12.	TOT	TAL S	SAMPI	ES	6	0	
. NAN	IE OF DRILL	.ER				13.	TO	TAL P	NUMB	ER CORE BOXES	0		
				DEG EDOM	BEARING	14.	ELE	VAT	ION G	ROUND WATER			
	VERTICAL	BORIN	9	DEG. FROM VERTICAL	BEARING						STARTED	COMPLETE	D
	INCLINED					15.	DA	LE RO	ORING	•	03-29-15	03-29-1	15
. тню	CKNESS OF	OVER	BURDEN	N/A		16.	ELE	EVAT	ΙΟΝ Τ	OP OF BORING	-38.2 Ft.		
. DEP	TH DRILLED	о імто	ROCK	N/A		17.	TOT	TAL F	RECO	ERY FOR BORIN	G 96 %		
						18.	SIG	NAT	URE A	ND TITLE OF INS	SPECTOR		
5. 101	AL DEPTH C		ING 20).0 Ft.		<u> </u>	,						
ELEV.	DEPTH	LEGEND	CI	LASSIFICATION	I OF MATERIALS	F	ŧе́с.	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
-38.2	0.0					Τ	Τ						
-30.2		<u></u>	SAND, p	oorly-graded,	mostly fine to		ŀ						
	ŀ		medium-	grained sand-	sized quartz, few sized shell, trace silt,								
	–	••••			l, 2.5Y 6/2 light								
	È i		brownish	gray (SP)	-								
	-												
	-												
	F									-41.2			
	-					F		1		-11.2			
	-												
	<u> </u>												
	-												
	-												
	L	••••											
	-									-44.2			
	-	·				Γ		2					
	5												
	-												
	ŀ	<u> </u>											
	F												
	Ę	$ \cdots $											
	F	[∷∷]				L				-47.2			
	F	$ \cdots $					┝	3					
	F	[·.··]											
	F	[:::]											
	E	$ \cdots $											
	F	[···]											
	F	$ \cdots $											
	È.	[:::]			odium arcinod	Ļ	-+	4		-50.2			
	È	[:::]	Sand-size	ed shell	edium-grained		┝	4					
	ŀ	$ \cdots $											
	F	 ⊡											
	È	[.:.]											
	F	·.··											
	F	[···]											
	F	1								-53.2			1

DRI	LLING	LOC	G (Cont. Sheet)	INSTALLA Jackso		Diet	ict			SHEE	ET 2 2 Shee	те
ROJEC			. ,					им	HORIZONTAL	VERTICAL		.13
	ohns Cour	nty Fe	asibility	State F					NAD83	NAVD		
OCATI	ON COORDI	NATE	S	ELEVATIO	N TOP	OFB	ORIN	G				
X = 5	587,796	1	,085,832	-38.2 F	t.							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMAR	KS	BLOWS/ 1 FT.	N-VALUE
			►At El53.2 Ft., trace shell			5						
			At El55.1 Ft., mostly fine-grained sand-sized quartz, few medium-grai sand-sized shell, 2.5Y 5/1 gray	ned		6		-55.7				
-57.3	19.1	 										
-58.2	20.0							-58.2				
			NOTES:					Abbrevi	ations:			
			 USACE Jacksonville is the custo these original files. 	odian for								
			 Soils are field visually classified accordance with the Unified Soils Classification System. 	in								
			3. Laboratory Testing Results									
			SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIC									
			1 3.0/3.3 SP 2 6.0/6.3 SP 3 9.0/9.3 SP 4 12.0/12.3 SP 5 15.0/15.3 SP 6 17.5/17.8 SP	* * *								
			*Lab visual classification based on g curve	gradation								
			4. Additional Laboratory Testing									
			 Percent Visual Shell Percent Visual Shell Percent Carbonate Percent Visual Shell Percent Visual Shell Percent Visual Shell Percent Visual Shell 									

			DIVISI	<u></u>				TAL			y Designa	alion	AR-21013	SHEET 1	
DRI	LLING	LOG		uth Atlantic							istrict			OF 2 S	
. PRO	JECT						_				OF BIT	See	Remarks		
S	t. Johns C	county	Feasibility				10.	CO	ORDI	NATE	SYSTEM/DA		HORIZONTAL	VERTICA	_
		,	,						State	e Plar	ne, FLE (U.S	S. Ft.)	NAD83	NAVD	88
. BOR	ING DESIGI	NATION	4	LOCATION	COORDI	NATES	11.				RER'S DESIG	,			IER
	B-SJN15-			X = 588	,	Y = 2,088,437								MANUAL HA	
	LING AGEN				1	RACTOR FILE NO.	12.	то	TAL S	SAMPI	.ES	DI	STURBED	UNDISTURBE	D (UD)
	orps of En	0	s - CESA	J	673	8-15-5453							7	0	
. NAM	E OF DRILL	.ER					13.	то	TAL	NUMB	ER CORE BO	XES	0		
. DIRE		BORIN	G	DEG. FRO	m	BEARING	14.	EL	EVAT	ION G	ROUND WAT	FER			
	VERTICAL			VERTICA	L		15	ПΔ		ORING			STARTED	COMPLET	
	NCLINED												03-29-15	03-29-	-15
. тніс	KNESS OF	OVERE	BURDEN	N/A			16.	EL	EVAT	ΙΟΝ Τ	OP OF BORI	NG	-43.8 Ft.		
. DEP	TH DRILLED	о імто	ROCK	N/A			17.	то	TAL I	RECO	/ERY FOR BO	ORING	85 %		
							18.	SIC	GNAT	URE A	ND TITLE O	F INSPE	CTOR		
. тот	AL DEPTH C	OF BOR	ING 2	0.0 Ft.					,						
ELEV.	DEPTH	LEGEND	с	LASSIFICATI	ION OF N	MATERIALS		RËC.	BOX OR SAMPLE	RQD OR UD			REMARKS	BLOWS/ 1 FT.	N-VALUE
-43.8	0.0	$\left\{ \cdot \cdot \right\}$	SAND n	oorly-grade	d most	ly sand to	_								
	-		gravel-si	zed shell, lit	ttle fine	to									
	-		medium-	grained sar	nd-sized	quartz, strong dark gray (SP)									
45.1	1.3	_l· ∴·l				0, ,									
	-			oorly-grade arained sar		quartz, some									
			fine to co	barse-graine	ed sand-	sized shell, trac	e								
	-	$ \cdot \cdot $		7/1 light gr											
	-	••••		6.2 Ft., little ed shell, we		tion with HCl					-46.8				
	-								1						
	-														
		• • • •													
	-														
	-														
	-	• • • •	Shell str	3.8 ⊢t., som ong reactior	n with H	to gravel-sized									
	-	l:-:-		9.5 Ft., few i							-49.8				
	-		sand-siz	ed shell, we	ak reac	tion with HCI	ŀ		2		40.0				
	-														
	-	[:.:]													
ł	-														
	-	∴·													
	-			1.7 Ft., 2.5Y	-	-									
ł	-		←rom El.	-52.1 to -52	∠.4 ⊦t., s	silty sand seam					50.0				
		:::-	At FL -5	2.8 Ft., mos	tly fine-	orained	⊢		3		-52.8				
	-	[·.··]		ed quartz					Ľ						
	-	[…]													
	-	$ \cdots $													
	-	·.·.									54 9				
		[…]					┠		4		-54.8				
	-	$ \cdot \cdot \cdot $							Ľ.						
	-	$ \cdot \cdot \cdot $													
	-	$\left[\cdot \cdot \right]$													
	-	$\left \cdot \cdot \cdot \right $									-56.8				
	-	$ \cdots $					ŀ		5		-00.0				
-57.3	13.5	· · ·	SAND n	oorly-grade	d with e	ilt mostly									
	-		fine-grain	ned sand-siz	zed qua	rtz, few									
	-		medium-	grained sar	nd-sized	shell, few silt,									
-58.8	- ⁻ 15.0	ŀ∷∦ħ	weak rea (SP-SM)	action with H	101, 2.5	r 6/1 gray					-58.8				
JU.0	13.0	1. 111									-00.0				1

DRI	LLING	LOC	G (Cont. Sheet)	Jackso		Dict	ict	_		-	2 S	
PROJEC			. ,					им	HORIZONTAL			HEETS
	- ohns Cour	nty Fea	asibility	State F					NAD83	NAV		
	DN COORDI		-	ELEVATIO					•	· ·		
X = 5	588,713	Y = 2	,088,437	-43.8 F	Ŧ.							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMAR	KS	BLOWS/ 1 FT.	N-VALUE
-59.5 -60.7	15.7 16.9		From EI58.4 to -58.6 Ft., sandy si SAND, poorly-graded, mostly fine-g sand-sized quartz, little medium-gra sand-sized shell, trace silt, strong re with HCl, 2.5Y 6/1 gray (SP) From EI59.3 to -59.7 Ft., very she sand seam SAND, poorly-graded with silt, most	rained ined eaction Ily silty	r	6	-	-59.8				
			to gravel-sized shell, some fine to medium-grained sand-sized quartz, strong reaction with HCl, 2.5Y 5/1 g (SP-SM)	few silt,								
-63.8	20.0						-63.8					
			NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified i accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE ID DEPTH CLASSIFIC 1 3.0/3.3 2 6.0/6.3 3 9.0/9.3 4 11.0/11.3 5 13.0/13.3 5 13.0/13.3 6 15.0/15.3 7 16.0/16.3 7 16.0/16.3 8 9.0/9.3 9 1 1 3.0/13.3 5 13.0/13.3 5 13.0/13.3 7 16.0/16.3 8 P.S *Lab visual classification based on generative 4 Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell	TORY CATION * * * * * * * *				Abbrevi	ations:			
	ORM 183											

			DIVISIO	N					y Designatio		SHEET 1	
DRI	LLING	LOG		th Atlantic		_	ckson		istrict		OF 2 SH	EETS
PRO	JECT									ee Remarks		
S	st. Johns C	ounty F	easibility			10. 0			SYSTEM/DATUM	1	VERTICAL	
808	ING DESIGN			LOCATION COOR		.			ne, FLE (U.S. Ft RER'S DESIGNAT	/	NAVD8	
	B-SJN15-				Y = 2,088,102	11. 1	ANUP	ACTU	RER'S DESIGNAT] AUTO HAMME] MANUAL HAN	
	LING AGEN				ITRACTOR FILE NO.	42 7		CAMD	Ee	DISTURBED	UNDISTURBED	
	orps of En		- CESAJ	6	738-15-5453	12. 1	OTAL	SAMP	LEƏ	6	0	
NAM	IE OF DRILL	.ER				13. 1	OTAL	NUMB	ER CORE BOXES	0		
DIRE		BORING		DEG. FROM	BEARING	14. 1	LEVA		ROUND WATER			
\boxtimes	VERTICAL			VERTICAL		15. 0	DATE B	ORING	3	STARTED 03-29-15	COMPLETE 03-29-1	
тніс	KNESS OF	OVERB	URDEN	N/A		16. 1			OP OF BORING	-40.1 Ft.		
DEP	TH DRILLED			N/A		17. 1	OTAL	RECO	VERY FOR BORIN	IG 100 %		
						18. \$	GIGNAT	URE A	AND TITLE OF INS	SPECTOR		
TOT	AL DEPTH C	JF BORI	NG 20	.0 Ft.			,		1			
LEV.	DEPTH	LEGEND	CL	ASSIFICATION O	F MATERIALS	RE	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
40.1	0.0											
		\cdots	SAND, po	oorly-graded, mo grained sand-siz	ostly fine to			1				
	-	••••	fine-graine	ed sand-sized s	hell, weak reaction							
	-				ownish gray (SP)							
	-	ŀ⊡h	-At El41.	.5 Ft., few medi	um-grained							
	-		sand-size	d shell								
	-											
	-	••••							-43.1			
	-						1]				
	-											
	_	· · · ·										
	-											
	-											
	-											
	-								-46.1			
	-	•.•.•					2]				
	-											
	-											
	-											
	- -											
	-	$ \cdots $										
	-	[::::[-49.1			
	-	$ \cdot\cdot\cdot $	-At El49.	.1 Ft., mostly fin d quartz, trace s	e-grained		3	-				
	-			•								
	-	:∷: `	-At El50.	.0 Ft., mostly fin	e to				50.0			
		$ \cdots $	meaium-g	grained sand-siz	eu qualtz	\vdash	4	1	-50.6			-
	-		A + E +	0.51			⊢ İ	1				
	-		-At El51. sand-size	.2 Ft., mostly fin d quartz	e-grained							
	-	$ \cdot \cdot \cdot $	5.20					1				
	-							1				
	-							1				
	<u>-</u>	$ \cdot \cdot \cdot $							53.0			
	-	l⊡k	-At El53	.6 Ft., trace she	I	\vdash	5	\mathbf{I}	-53.6			
	-						F	1				
	-	$ \cdots $										
	-							1				
	DRM 183	6						-		(Continued)	1	

יסח			G (Cont. Sheet)	INSTALLA							SHEET	2	
DR	LLING		s (cont. sheet)	Jackso	nville	Distr	ict				OF 2	SHEETS	s
PROJEC		. –		COORDIN					HORIZONTAL	1			
	ohns Coun			State F					NAD83	l N	AVD88		
	ON COORDI			ELEVATIO		OF B	ORIN	G					
X = {	586,166		,088,102	-40.1 F	t.								_
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	ALS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMARKS	5	BLOWS/	N-VALUE	
-60.1	20.0		At El55.4 Ft., 5G 5/1 greenish gr NOTES: 1. USACE Jacksonville is the cust these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE 1 3.0/3.3 2 6.0/6.3 3 9.0/9.3 4 10.5/10.8 5 13.5/13.8 6 15.5/15.8 *Lab visual classification based on curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell 7 Percent Visual Shell 8 Percent Visual Shell 9 Percent Visual Shell 6 Percent Visual Shell 7 Percent Visual Shell 8 Percent Visual Shell 9 Percent Visual Shell 6 Percent Visual Shell 7 Percent Visual Shell	odian for in ATORY ICATION				-55.6 -60.1 Abbrevia	ations:				

			DIVIS			ING	TALL			y Desigi	allon	VD-SJINIS	SHEET 1	
DRI	LLING	LOG		outh Atlantic						istrict			OF 2 SH	IEETS
1. PRO	JECT					_				E OF BIT	See	Remarks		-
S	St. Johns C	ounty l	- easibilit	y		10.	coc	RDI	NATE	SYSTEM/D	ATUM	HORIZONTAL	VERTICAL	
										ne, FLE (U	,		NAVD8	38
	ING DESIG		l	1	OORDINATES	11.	MAI	NUFA	CTU	RER'S DESI	GNATIO			
	B-SJN15-			X = 588,0	015 Y = 2,090,244 CONTRACTOR FILE NO.									
-	Corps of Er			41	6738-15-5453	12.	тот	AL S	SAMPI	LES		3	UNDISTURBED) (UD)
	IE OF DRILL	<u> </u>	3 - OLOF	10	0100 10 0400	13	тот	- 10-	JIIMB	ER CORE B	OXES	0	0	
												0		
	ECTION OF	BORING	;	DEG. FROM	M BEARING	14.	ELE	VAT	ION G		ATER			
	VERTICAL			VERTICAL		15.	DAT	Е ВС	ORING	•		STARTED 03-26-15	03-26-	
	CKNESS OF	OVEDR				16	ELE			OP OF BOR	ING	-46.6 Ft.	00-20-	10
6. I HIG	CKNESS OF	OVERB	URDEN	N/A		┢								
7. DEP	TH DRILLEI	DINTO	ROCK	N/A		17.				ND TITLE		93 %		
8. тот	AL DEPTH	OF BOR	ING	20.0 Ft.] '°.	310		URE A		OF INSP	ECTOR		
ELEV.	DEPTH	LEGEND		CLASSIFICATIO	ON OF MATERIALS	F	, ŧĚC.	BOX OR SAMPLE	RQD OR UD			REMARKS	BLOWS/ 1 FT.	N-VALUE
		┟┛╽				-+	\rightarrow	шv)						ż
-46.6	0.0													
	-		SAND,	poorly-graded	l, mostly fine to		F							
	L		fine to r	n-grained sand medium-graine	d-sized quartz, some ed sand-sized shell,									
	-		trace si	It, strong reac	tion with HCI,									
	Ľ.		2.5Y 5/	2 grayish brov	vn (SP)									
	-													
	-													
	-	l∷∷ſ		I49.0 to -49	2 Ft., very shelly sand					10.0				
	-		seam	492 Ft little r	nedium-grained			1		-49.6				
	-	$ \cdot \cdot \cdot $			Y 6/2 light brownish		-	-						
	-	l:∵: `	gray		ing to prove surfaced									
	-		sand-si	zed shell	ine to coarse-grained									
	È i i													
	_													
	F													
	-					L				-52.6				
	-	••••					-	2						
	F													
	F	$ \cdot\cdot\cdot $												
-54.4	7.8													
9 1. T	<u> </u>				with silt, mostly									
	È				ed quartz, few silt, few d-sized shell, strong					-55.1				
	F				SY 5/1 gray (SP-SM)		ļ	3						
	F			.,										
	Ł													
	-													
-57.1	10.5				.1 Ft., shelly very silty	ړ								
	Ł		SAND	eam clayey, mostly	/ fine-grained	_/								
	ŀ		sand-si	zed quartz, so	ome clay, weak reaction	n								
-58.5	- 11.9		with HC	Cl, N 5/ gray (SC)									
00.0	-	1///	\From E ∖sand se		5 Ft., shelly very claye	^y /								
	Ę	V/Λ			grained sand-sized	-								
	F	V/A	quartz,		ith HCl, N 4/ dark gray									
	F		(CL)											
	Ł													
	┝	V/A												
	È	V/Λ		60.8 Ft., little f	ine-grained sand-sized									
	F	V/A	quartz											

DR	LLING	LOC	G (Cont. Sheet)	INSTALLA Jackso		Dietr		<u>9 9</u>			SHEET 2]
PROJEC								UM	HORIZONTAL	VF	RTICAL		1
	ohns Cour	ntv Fe	asibility	State F					NAD83	1	NAVD88		
	ON COORDI			ELEVATIO					:				
	588,015			-46.6 F									
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIAI	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMARKS	5	BLOWS/ 1 FT.	N-VALUE	
			At El62.1 Ft., few fine-grained san quartz, 5G 4/1 dark greenish gray	d-sized									- 1: - - - - - - - - - -
-65.1	18.5												Ē
													E
-66.6	20.0							-66.6					
			NOTES:					Abbrevi	ations:				£ _
			 USACE Jacksonville is the custo these original files. Soils are field visually classified i accordance with the Unified Soils 										
			Classification System.										-
			3. Laboratory Testing Results SAMPLE SAMPLE LABORA	TORY									- - -
			ID DEPTH CLASSIFIC 										Ē
			2 6.0/6.3 SP* 3 8.5/8.8 SP-SI	•									-2
			*Lab visual classification based on g curve	radation									-
			4. Additional Laboratory Testing										E
			1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell										
													-
													E
													-3
													Ē
													Ŀ
													E
													Ŀ
													E
					1								F
					1								F
					1								Ł
					1								Ł
													Ŀ,

			DIVIS			INC	TALLA			g Designation		SHEET 1	
DR	LLING	LOG		outh Atlantic			Jackso			istrict		OF 2 SH	
1. PRC	JECT		00			-					See Remarks	10. 2 0.	
ç	St. Johns C	County	Feasibilit	V						SYSTEM/DATU		VERTICAL	
		Joanty	1 Gaololini	.,						ne, FLE (U.S. F	1	NAVD	
2. BOF	RING DESIG	NATIO	N	LOCATION COOR	DINATES	11.				RER'S DESIGNA			
\	/B-SJN15-	61		X = 586,049	Y = 2,090,478								
3. DRI	LLING AGE	NCY		COI	NTRACTOR FILE NO.	4.2	TOT			EC	DISTURBED	UNDISTURBE) (UD)
	Corps of Er	<u> </u>	rs - CESA	AJ (6738-15-5453	12.	тоти	AL 5/	AIVIPI	LEƏ	7	0	
4. NAM	IE OF DRILL	LER				13.	тоти	L N	имв	ER CORE BOXE	s 0		
					<u> </u>	14.	ELE\		ON G	ROUND WATER	1		
	ECTION OF	BORIN	G	DEG. FROM VERTICAL	BEARING						STARTED	COMPLET	ED
	INCLINED					15.	DATE	во	RING	6	03-26-15	03-26-	
6 THI	CKNESS OF	OVER		N/A	•	16.	FI F\	ΔΤΙ		OP OF BORING	-38.2 Ft.	1	
0. 111		OVER	BONDEN	11/7		<u> </u>							
7. DEP	TH DRILLEI	D INTO	ROCK	N/A						VERY FOR BORI			
8. ТОТ	AL DEPTH	OF BOI		20.0 Ft.		1.10.	31GN	AIU	IKE A		SPECIOR		
			_			<u> </u>	,						
ELEV.	DEPTH	LEGEND		CLASSIFICATION O	F MATERIALS	R	2°C.	SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
00.0	0.0					Τ		Τ					
-38.2	0.0	$\left \cdots \right $	SAND	poorly-graded, mo	ostly fine to		\vdash	+					
	F		medium	n-grained sand-siz	ed quartz, some								
	F	[.·.·]	fine to n	medium-grained s	and-sized shell,								
	-			It, strong reaction 1 gray (SP)	with HCl,								
	F	• • • •	2.51 0/	rgiay (Sr)									
	F	••••											
	F			40.3 Ft., few medi	um-grained								
	F		sand-siz	zed shell						-41.2			
	F	· · · ·				F		1		-41.2			+
	F	• • •						-					
	F	\vdots											
	F												
	Ł												
	┝	$\cdot \cdot \cdot \cdot$											
	E		.										
	F			43.7 Ft., little med zed shell	ium-grained					-44.2			
			sanu-siz	zeu shell				2					
	F	• • • •											
	E	••••											
	F												
	F												
	F	$ \cdot \cdot \cdot $											
	-	· · · ·	∽At El4	46.6 Ft., few medi	um-grained								
	L			zed shell	U					-47.2			
	ŀ	l.⁺.⁺.					Ľ	3					
	t	$ \cdot \cdot \cdot $	From E	I47.7 to -47.9 Fi	., very shelly sand								
	┝	$ \cdots $	seam		-								
	Ľ												
	ŀ		∽At El4	48.9 Ft., mostly fir	e-grained					-49.2			
	F		sand-siz	zed quartz, few m	edium-grained	F		4		-			
	ŀ	····		zed shell, weak re	action with HCI,								
	F	$\left \begin{array}{c} \cdot \\ \cdot \\ \end{array} \right $	2.5Y 5/			⊢				-50.2			\downarrow
	F		∽At EI5 ∖ shell	ou.∠ ⊢t., tew tine-g	grained sand-sized		⊢	5					
	F			50.5 Ft., mostly fir	ie to								
	F		medium	n-grained sand-siz	ed quartz, some								
	F			medium-grained s									
	F			reaction with HCl,	2.5Y 6/1 gray to medium-grained								
	F			zed shell	lo modulin-graineu								
	F				., very shelly sand								
	Γ	l.∵	seam							-53.2			

DR	LLING	LOC	G (Cont. Sheet)	INSTALLA				<u> </u>			SHEET]
				Jackso					1	1	OF 2	SHEETS	، ا
PROJEC		the Lo	a cibility						HORIZONTAL	1	RTICAL NAVD88		
	ohns Cour			State F				,	NAD83	<u> ! </u>	NAV Doo		-
	on coordi 586,049		. 090,478	ELEVATIO -38.2 F		OFB	ORIN	G					
ELEV.	DEPTH		CLASSIFICATION OF MATERIA		RÉC.	BOX OR SAMPLE	RQD OR UD		REMARK	5	BLOWS/ 1 FT.	N-VALUE	1
-55.6	17.4		At El53.2 Ft., trace shell, weak rea with HCl At El54.2 Ft., mostly fine-grained sand-sized quartz, few medium-grai sand-sized shell SAND, silty, mostly fine-grained san quartz, little silt, little fine to medium	ned id-sized	 	6		-54.2					- 1! - - - - - - - - - - - - - - - - - - -
-58.2	20.0		sand-sized shell, weak reaction with 10Y 5/1 greenish gray (SM)	-graned HCI,				-58.2					
30.2			NOTES: 1. USACE Jacksonville is the custor these original files. 2. Soils are field visually classified in accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIC 1 3.0/3.3 SP 2 6.0/6.3 3 9.0/9.3 SP 4 11.0/11.3 SP 5 12.0/12.3 SP 6 15.0/15.3 SP 7 16.0/16.3 SP 7 16.0/16.3 SP 7 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 3 Percent Visual Shell 4 Percent Vi	n TORY CATION				Abbrevi	ations:				

			DIVISIO	N		INC.	TALLAT		ig Designatio		SHEET 1	
DRI	LLING	LOG		N Atlantic			acksor		District		OF 2 SH	EETS
1. PRO	JECT									ee Remarks		-
s	t. Johns C	ounty	Feasibility			10.	COOR	DINATI	SYSTEM/DATUM		VERTICAL	
			2				Sta	te Pla	ne, FLE (U.S. F	t.) NAD83	NAVD8	88
2. BOR	ING DESIG	NATION	N	LOCATION COOR	DINATES	11.	MANU	ACTU	RER'S DESIGNAT			R
	/B-SJN15-		i	,	Y = 2,092,273						MANUAL HAN	
	LING AGEN		CESAL	1	TRACTOR FILE NO. 0738-15-5453	12.	ΤΟΤΑΙ	SAMP	LES	DISTURBED	UNDISTURBED) (UD)
	E OF DRILL		rs - CESAJ	i	0730-10-0403	42					0	
									SER CORE BOXES	0		
	CTION OF	BORIN	G	DEG. FROM	BEARING	14.	ELEVA		GROUND WATER			
	VERTICAL			VERTICAL		15.	DATE	BORIN	G	STARTED 03-26-15	03-26-1	
				<u>.</u>		40		TION			03-20-	10
6. THIC	KNESS OF	OVER	BURDEN	N/A		<u> </u>			TOP OF BORING	-44.9 Ft.		
7. DEP	TH DRILLED	D INTO	ROCK	N/A		17.			VERY FOR BORIN			
8. ТОТ	AL DEPTH (OF BOR	RING 20	.0 Ft.] '°.	JIGNA	IURE	AND TITLE OF IN	SPECTOR		
ELEV.	DEPTH	LEGEND	CL	ASSIFICATION O	F MATERIALS	R	%EC. DA	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
		+				+		+				-
-44.9	0.0	$\left \ldots \right $		orly graded me	othy find grained				4			
	-		sand-size	d quartz, few m	ostly fine-grained edium-grained							
	-		sand-size	d shell, trace sil	t, weak reaction							
	-		with HCl, 1	2.5Y 6/1 gray (SP)							
	_	· · · · ·										
	-	$[\cdot \cdot \cdot]$										
	-											
	-	••••							-47.9			
	-	••••					1	1				
	_											
		$ \cdots $										
	-	••••										
	-											
	-											
	-	••••							-50.9			
	_						2	-	-50.9			
	-	$\cdot \cdot \cdot \cdot$						1				
	-	[∷:]										
	_	[···]										
	-	$ \cdots $										
	-	[····]										
	-								50.0			
	_		At EL -53	9 Ft., mostly fin	e to	⊢	3	-	-53.9			┼─- ┨
	-		medium-g	rained sand-siz	ed quartz, little		F	1				
	<u>-</u>			rained sand-siz								
	_	$ \cdots $	ALEI94.	8 Ft., trace she	п							
	Ε.,.	[: :										
-56.0	<u>- 11.1</u> -		SAND no	orly-graded with	n silt mostly							
	-	[·]]	fine-graine	ed sand-sized q	uartz, little coarse							
	-	 .	gravel-size	ed shell, few sili	t, strong reaction	L	╡ ,	4	-56.9			
	_	 : 	with HCI, 2	2.5Y 5/1 gray (57-5IVI)		4	-				
	-	[.]]										
	<u> </u>	[::]]#	∽At El57.	8 Ft., few medi	um-grained							
	-	:: ! 	sand-size	u snell, weak re	action with HCI							
FOO	-	 .										
-59.2	_ 14.3 -		SILT, inor	ganic-H, few fin	e-grained							
	-			d quartz, no rea								
								-		(Continued)		-

DP		100	G (Cont. Sheet)	INSTALLA				<u> </u>			SHEET	2	
				Jackso					1	<u> </u>	OF 2	SHEET	rs
PROJEC				COORDINA					HORIZONTAL	1			
	ohns Coun			State F					NAD83	<u> </u>	NAVD88		_
				ELEVATIO		OF B	ORIN	G					
X = :	585,853	1	,092,273	-44.9 F	1.	~							
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMARKS	3	BLOWS/	N-VAL	
-63.8	18.9		N 4/ dark gray (MH)										
													Ē
-64.9	20.0		NOTES: 1. USACE Jacksonville is the custo these original files. 2. Soils are field visually classified i accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE ID DEPTH CLASSIFIC 1 3.0/3.3 2 6.0/6.3 3 9.0/9.3 2 6.0/12.3 3 9.0/9.3 4 12.0/12.3 *Lab visual classification based on groups 4 12.0/12.3 *Lab visual classification based on groups 4 12.0/12.3 SP-Si *Lab visual classification based on groups 4 12.0/12.3 SP-Si *Lab visual classification based on groups 4 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 4 Percent Visual Shell 4 Percent Visual Shell 4 Percent Visual Shell	n TORY CATION				-64.9 Abbrevia	ations:				

			DIVISION		INS	STALL			g Designati		SHEET 1	
DRI	LLING	LOG	South Atlantic						istrict		OF 2 SH	EETS
1. PRO	JECT				9.	SIZE	AND	ТҮР	E OF BIT	See Remarks		
S	St. Johns C	ounty I	easibility		10.	coo	RDI	NATE	SYSTEM/DATU	M HORIZONTAL	VERTICAL	
									ne, FLE (U.S. F		NAVD8	88
			1		11.	MAN	IUFA	CTU	RER'S DESIGNA			
	B-SJN15-		X = 584	,417 Y = 2,091,500	-						MANUAL HAN	
-	Corps of Er		s - CESAJ	6738-15-5453	12.	тот	AL S	AMP	LES	3	0	, (00)
	IE OF DRILL	<u> </u>	020/10		13.	тот		IUMB	ER CORE BOXE		0	
									ROUND WATER	-		
	ECTION OF	BORING	DEG. FRO	M BEARING	 ^{14.}	ELE	VAI		ROUND WATER	STARTED		D
	VERTICAL				15.	DAT	E BO	RING	3	03-26-15	03-26-1	
6. THI	CKNESS OF	OVERB	urden N/A	ı	16.	ELE	VAT		OP OF BORING	-42.3 Ft.		
					<u> </u>				VERY FOR BORI			
7. DEP	TH DRILLEI	DINTO	ROCK N/A						AND TITLE OF IN			
8. ТОТ	AL DEPTH	OF BOR	NG 20.0 Ft.			,						
ELEV.	DEPTH	LEGEND	CLASSIFICATI	ION OF MATERIALS		RÉC.	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
		\dagger										
-42.3	0.0		SAND, poorly-grade	d mostly fine to	_	-						
	F		medium-grained sar	nd-sized quartz, few fine								
	-			and-sized shell, trace ith HCl, 2.5Y 6/2 light								
	-		brownish gray (SP)									
	F											
	-											
	-	: · : · :										
	_				ŀ	_	1		-45.3			
	-					ŀ	-					
	<u>-</u>	:·:·:										
	-											
	F	••••										
	-											
	È								10.0			
	-	l⊡h	-At El48.3 Ft., mos	tly fine-grained	⊦	_	2		-48.3			
	Ē.		sand-sized quartz, tr	ace shell		F	-					
	-	• . • . •										
	Ł	[····]										
	ŀ											
	F	l⊡ľ	From El50.3 to -50	0.4 Ft., silty sand seam								
	È								51.2			
	F	l⊡h	-At El51.3 Ft., few	medium-grained	┠	-+	3		-51.3			
	ŀ	$\left \cdot \cdot \cdot \right $	sand-sized shell	-		F						
	Ľ											
	È											
-53.3	11.0											
	-		SAND, silty, mostly	fine-grained sand-sized								
	È		quartz, little silt, few sand-sized shell, we	ak reaction with HCI,								
	F	+ 	2.5Y 5/1 gray (SM)									
	ŀ		At El54.1 Ft., little shell	sand to gravel-sized								
	F			e sand to gravel-sized								
	È		shell	e sanu io yravel-sized								
	F		-At El56.0 Ft., som	e silt, trace shell,								
	ŀ		2.5Y 3/1 very dark g	ray								
	ļ	 + <u>†</u> + <u>†</u>										

DRI	LLING	LOC	G (Cont. Sheet)	INSTALLA Jackso		Dietr	ict			SHEET	2 SHEETS
PROJEC			-					UM	HORIZONTAL		SHEETS
	ohns Coun	ty Fea	asibility	State F					NAD83	NAVD8	8
	ON COORDI			ELEVATIO					•	•	
X = 5	684,417	Y = 2	,091,500	-42.3 F	t.						
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD		REMAR	KS OTA	1 FT. N-VALUE
-57.7	15.4	+[+]									
			CLAY, lean, some fine-grained sanc quartz, no reaction with HCI, 5G 4/1 greenish gray (CL)	l-sized dark							
-59.2	16.9		From EI59.0 to -59.2 Ft., silty sand SAND, clayey, mostly fine-grained sand-sized quartz, some clay, no re with HCI, 5GY 4/1 dark greenish gra	action							
-62.3	20.0							-62.3			
			NOTES: 1. USACE Jacksonville is the custo these original files. 2. Soils are field visually classified i accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABORA ID DEPTH CLASSIFIC 1 3.0/3.3 SP ¹ 2 6.0/6.3 SP ¹ 3 9.0/9.3 SP ² *Lab visual classification based on g curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell 3 Percent Visual Shell	n TORY CATION				Abbrev	riations:		

			DIVISI			INS	TALL			y Designation	VD-001010	SHEET 1	
DRI	LLING	LOG	_	outh Atlantic						istrict		OF 2 S	
. PRO	JECT					9.	SIZE	AND	ТҮР	E OF BIT See	Remarks	I	
S	t. Johns C	ounty F	easibility	у		10.	CO	ORDI	NATE	SYSTEM/DATUM	HORIZONTAL	VERTICAL	
										ne, FLE (U.S. Ft.)		NAVD	
	I NG DESIGN B-SJN15-6			1	COORDINATES 752 Y = 2,094,801	11.	MA	NUFA	CTU	RER'S DESIGNATIO		AUTO HAMM	
	LING AGEN	-		A = 565,	CONTRACTOR FILE NO.							UNDISTURBE	
С	orps of En	gineers	3 - CESA	۰J	6738-15-5453	12.	тот	TAL S	AMPI		4	0	(-)
. NAM	E OF DRILL	ER				13.	то	TAL N	IUMB	ER CORE BOXES	0		
						14.	ELE	VAT	ION G	ROUND WATER			
	CTION OF I	BORING	i.	DEG. FROM VERTICAL	M BEARING						STARTED	COMPLET	ED
	NCLINED					15.	DA	ГЕ ВС	DRING	Ì	03-26-15	03-26-	15
. тніс	KNESS OF	OVERB	URDEN	N/A		16.	ELE	EVAT	ION T	OP OF BORING	-46.9 Ft.		
. DEP	TH DRILLED		KOCK	N/A		17.	TO	TAL F	RECO	/ERY FOR BORING	90 %		
						18.	SIG	NAT	JRE A	ND TITLE OF INSP	ECTOR		
. тот	AL DEPTH C		NG 2	20.0 Ft.		L							
ELEV.	DEPTH	LEGEND	c	CLASSIFICATIO	ON OF MATERIALS	R	ŧĚC.	BOX OR SAMPLE	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
40.0													
-46.9	0.0	$\left \cdots \right $	SAND, r	poorly-gradec	d, mostly fine to		┝						
ŀ	-	ŀ∵∙h	medium	-grained sand	d-sized quartz, some								
	-	:::			ed sand-sized shell, tion with HCl,								
ŀ	-	l∷∷l∖	2.5Y 5/2	2 gravish brov	wn (SP)								
ŀ		$ \cdot\cdot\cdot $	seam	47.3 to -47	.4 Ft., silty shelly sand					-48.9			
	-	$ \cdots $	At El4	8.3 Ft., little r	medium-grained	Γ		1					
	-	.∷.I\		zed shell, wea 2 light brownis	ak reaction with HCl,								
ł	-	$\cdot \cdot \cdot$			nedium-grained								
	-			zed shell	U U								
	-					⊢		0		-50.9			_
	-	·.·.					ŀ	2					
ł	-												
ł	-												
-	-									-52.9			
	-	ŀ∷·k	-At FI -5	3.1 Ft most	ly fine-grained	F		3					
	-		sand-siz	zed quartz, tra	ace shell, 2.5Y 5/1 gray					-53.9			
ł	-	$ \cdot \cdot $			nedium-grained	┢		4		-00.8			+
	-	li∷il∖	sand-siz	zed shell	-		ľ						
	-		ALEI54	י יז .ורנ., וטוינ	5/1 greenish gray								
	-												
ł	-												
ŀ	-												
	-	l∷⊦⊦	-At El5	6.6 Ft little :	sand to gravel-sized								
	-		shell										
ŀ	-	ŀ∷k											
-	-	l∷ik	From El. sand sea		.9 Ft., shelly very claye	У							
ļ	-	∷ : `	At El5		fine-grained sand-sized								
ļ	-	· · ·	shell										
	-	l∷∵ľ			e fine to medium-graine	d							
ŀ	-	$ \cdot \cdot \cdot \rangle$	sand-siz N 8/ whi		ong reaction with HCl,								
	-												
ł	-												
ŀ	-												
- F	-	1											
ŀ	-		-From EI	61.1 to -61	.4 Ft., shell seam								

Jacksonville District Jacksonville District Jor z Sterricul Bit.Johns County Feasibility State Plane, FLE (U.S. FL) NADB3 NAVDB3 LCATION COORDINATE SYSTEMATUM HORIZONTAL VERTICAL NAVDB3 LCATION COORDINATE SYSTEMATUM NADB3 NAVDB3 LCATION COORDINATE SYSTEMATUM NADB3 NAVDB3 LCATION COORDINATE SYSTEMATUM NAUDB3 NAVDB3 LCATION COORDINATE SYSTEMATUM HORIZONTAL NAUDB3 LCATION COORDINATE SYSTEMATUM NAUDB3 NAUDB3 LCATION COORDINATE SYSTEMATUM HORIZONTAL NAUDB3 LCATION COORDINATE SYSTEMATUM HILL HILL LCATION COORDINATE SYSTEMATUM HILL HILL LEVATION TO P BORINE State Plane, FLE (US.FL) HILL LEVATION TO P BORINE State Plane, FLE (US.FL) HILL LEVATION TO STATE STATUM HILL HILL LEVATION TO STATUM HILL HILL G68.9 20.0 HILL HILL -64.8 17.9 - - -65.9	DRIL	LING	LOC	G (Cont. Sheet)	INSTALLA		Dist	ict		SHEET	
St. Johns County Feesibility State Plane, FLE (U.S. FL) NAD83 NAVD88 LOCATION COORDINATES X = 585,752 Y = 2,094,801 -46.9 FL -46.9 FL -46.9 FL LEVATION TOP OF BORING x = 585,752 Y = 2,094,801 -46.9 FL LEVATION OF MATERIALS PEC 58 600 REMARKS 52 72 LEVATION OF MATERIALS PEC 58 600 REMARKS 52 72 LEVATION OF MATERIALS PEC 58 600 REMARKS 52 72 LEVATION OF MATERIALS PEC 58 600 REMARKS 52 72				. ,							JUEEIS
LetVation top of BORING 46.9 FL 2 + 585,752 Y = 2.094,801 -46.9 FL elev. DEPTH gi CLASSIFICATION OF MATERIALS elex. Si for sold res. Si for sold for sold res. Si for sold		ns Coun	ty Fea	asibility					1	1	
ELEV. DEPTH g CLASSIFICATION OF MATERIALS REC SX ROD REMARKS SX REMARKS -4.8 -4.1 EL -62.2 FL. some fine-grained sand-sized quartz, some sand to gravel-sized shell, little fine gravel-sized limestone, 2.5Y 5/1 gray -66.9 -66.9 -64.8 17.9 -66.9 -66.9 -66.9 20.0 NOTES: -66.9 1 USAGE Jacksonville is the custodian for these original files. -66.9 2. Solds are field visually classified in accordance with the Unified Solls Classification System. -66.9 3 Laboratory Testing Results SAMPLE SAMPLE LABORATORY ID DEPTH CLASSIFICATION 1 1 2.02.3 SP* 4 7.0/7.3 -4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell					1						
-64.8 17.9 -66.9 20.0 -66.9 20.0 -66.9 20.0 -66.9 -66.9 NOTES: 1. USACE Jacksonville is the custodian for these original files. 2. Soils are field visually classified in accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE SAMPLE SAMPLE LABORATORY in DEPTH CLASSIFICATION in DEPTH CLASSIFICATION in Cruve 4 7.07.3 SP* 4 7.07.3 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell	X = 585	5,752	Y = 2	,094,801	-46.9 F	t.					
-64.8 17.9 -66.9 -64.8 17.9 -66.9 -66.9 20.0 -66.9 -66.9 20.0 -66.9 -61.9 NOTES: 1. USACE Jacksonville is the custodian for these original files. 2. Soils are field visually classified in accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABORATORY ID 1 2.02.3 SP* 3 6.06.3 SP* 4 7.07.3 SP* 3 6.06.3 SP* 4 7.07.3 SP* 4 7.07.3 SP* 4 7.07.3 SP* 1 Percent Visual Shell Image: Percent Visual Shell 2 Percent Visual Shell Percent Visual Shell	ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA	LS	RÉC.	BOX OR SAMPLE	RQD OR UD	REMAI	KS No 18 No 15	N-VALUE
-66.9 20.0 -66.9 NOTES: 1. USACE Jacksonville is the custodian for these original files. 2. Soils are field visually classified in accordance with the Unified Soils Classification System. Abbreviations: 3. Laboratory Testing Results SAMPLE LABORATORY ID Image: Classification System. 3. Laboratory Testing Results SAMPLE LABORATORY ID Image: Classification System. 1 2.0/2.3 SP* SP* 2 4.0/4.3 SP* 4 7.0/7.3 SP* *Lab visual classification based on gradation curve 4. Additional Laboratory Testing 1 Percent Visual Shell Percent Visual Shell				sand-sized quartz, some sand to gravel-sized shell, little fine gravel-s	ized						
NOTES: 1. USACE Jacksonville is the custodian for these original files. Abbreviations: 1. USACE Jacksonville is the custodian for these original files. 2. Soils are field visually classified in accordance with the Unified Soils Classification System. 1 3. Laboratory Testing Results 3. Laboratory Testing Results 4 SAMPLE SAMPLE LABORATORY Image: Description of the second secon	-64.8 1	17.9									
NOTES: 1. USACE Jacksonville is the custodian for these original files. Abbreviations: 1. USACE Jacksonville is the custodian for these original files. 2. Soils are field visually classified in accordance with the Unified Soils Classification System. 1 3. Laboratory Testing Results 3. Laboratory Testing Results 4 SAMPLE SAMPLE LABORATORY Image: Description of the second secon	66.0	20.0							66.0		
1. USACE Jacksonville is the custodian for these original files. 2. Soils are field visually classified in accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABORATORY ID DEPTH CLASSIFICATION 1 2.0/2.3 2 4.0/4.3 3 6.0/6.3 4 7.0/7.3 8 *Lab visual classification based on gradation curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell	-00.9 2	20.0									
				these original files. 2. Soils are field visually classified in accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE ID DEPTH CLASSIFICATION 1 2.0/2.3 2 4.0/4.3 3 6.0/6.3 4 7.0/7.3 *Lab visual classification based on generative 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell	n TORY CATION						

									ig Designatio			
DRI	LLING	LOG	DIVISIO	N h Atlantic			ALLAT		Netrict		SHEET 1 OF 2 S	
I. PRO	JECT		3001							e Remarks	0 2 3	
		Cunty	Feasibility		-		-		SYSTEM/DATUM		VERTICA	L
0		Janty	. casionity						ne, FLE (U.S. Ft		NAVD	
2. BOR	ING DESIG	NATION	• i	LOCATION COOR	DINATES	11.			RER'S DESIGNATI	,		
V	B-SJN15-	65		X = 583,857	Y = 2,093,404] MANUAL HA	
3. DRIL	LING AGE	YON		CON	ITRACTOR FILE NO.	42	τοται	SAMD		DISTURBED	UNDISTURBE	D (UD)
			rs - CESAJ	6	6738-15-5453	12.	IUIA	JAIVIP	LES	5	0	
4. NAM	IE OF DRILI	ER				13.	ΤΟΤΑΙ	NUME	ER CORE BOXES	0		
				DEC EDOM	BEARING	14.	ELEVA		ROUND WATER			
	ECTION OF	BORIN	6	DEG. FROM VERTICAL	BEARING					STARTED	COMPLET	ED
	INCLINED			1		15.	DATE	BORIN	G	03-26-15	03-26	-15
6. THIC	CKNESS OF	OVER	BURDEN	N/A		16.	ELEVA		OP OF BORING	-42.7 Ft.		
				1/A		17.	ΤΟΤΑΙ	RECO	VERY FOR BORIN	G 100 %		
I. DEP	TH DRILLE	DINTO	RUCK	N/A					AND TITLE OF INS			
8. ТОТ	AL DEPTH	OF BOR	ING 20.	.0 Ft.			,					
ELEV.	DEPTH	LEGEND	CL	ASSIFICATION O	F MATERIALS	R	Sox og	RQD OR UD		REMARKS	BLOWS/ 1 FT.	N-VALUE
								1				
-42.7	0.0	$\left\ \cdot \cdot \right\ $	SAND no	orly-graded mo	ostly fine-grained	-	\vdash		4			
	Ę	[:::]	sand-size	d quartz, few me	edium-grained							
	<u> </u>	 	sand-size	d shell, trace sil	t, weak reaction							
	F	$ \cdot \cdot \cdot $	with HUI, 2	2.5Y 6/1 gray (JF)							
	F	[⊡]							-14 7			
	F	 ···· 				\vdash	1	-	-44.7			
	-	$ \cdots $						1				
	<u>-</u>											
	L	.										
	-	$ \cdots $							-46.7			
	-	[···]					2					
	L	.										
	-	$ \cdots $										
		[···]										
	<u>L</u>								-48.7			
	-	$ \cdots $					3	1				
		[···]										
	L											
	-	$ \cdots $	-At El50.	1 Ft., mostly fin	e to							
	<u>-</u>	[···]	medium-g	rained sand-siz	ed quartz		_	4	-50.7			
	L	 					4	-				
	F	$\left \cdots \right $										
	F											
	L		∽At EI52. sand-size	0 Ft., mostly fin d quartz	e-grained				50.7			
	-	$\left \cdot \cdot \cdot \right $	50110-312C			\vdash	5	-	-52.7			
	-	[…]					F	1				
	<u>L</u>											
	F	$\left \cdots \right $										
	-	[…]										
	-											
		$ \cdots $	From FL -	55 2 to -55 6 Et	., shelly sandy silt							
-55.6	- 12.9	$\left \frac{1}{1} \right $	∖seam			Y						
	Ł		SILT, inor	ganic-L, few me	dium-grained	<u> </u>						
	F		sand-size	d shell, tew fine	-grained sand-sized h HCl, N 5/ gray							
	-		(ML)		1110i, 19 0/ gray							
	F											
	-											
	101 AO2	· ~ _								(Continued)		

DRI	LLING	LO	G (Cont. Sheet)	INSTALLA					nation VB-SJ	SHEET	
				Jackso					I	I	SHEETS
PROJEC	⊤ ohns Coun	ty Eo	ooibility	COORDINA State F					HORIZONTAL NAD83	VERTICAL NAVD88	
	ON COORDI		•	ELEVATIO					I NADOS	i NAVDoo	
	583,857			-42.7 F		01 1					
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIA		RÉC.	BOX OR SAMPLE	RQD OR UD		REMAR		N-VALUE
			 ✓From El57.7 to -58.2 Ft., no reac ✓HCl, slightly sandy shelly silt seam ✓At El58.0 Ft., discontinue shell 	tion with		<u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>				<u> </u>	Z
-61.6	18.9		CLAY, lean, few fine-grained sand- quartz, no reaction with HCl, N 3/ v	sized							
-62.7	20.0		gray (CL)					-62.7			
			NOTES: 1. USACE Jacksonville is the cust these original files. 2. Soils are field visually classified accordance with the Unified Soils Classification System. 3. Laboratory Testing Results SAMPLE SAMPLE LABOR/ ID DEPTH CLASSIFI 1 2.0/2.3 SF 2 4.0/4.3 SF 3 6.0/6.3 SF 4 8.0/8.3 SF 5 10.0/10.3 SF *Lab visual classification based on curve 4. Additional Laboratory Testing 1 Percent Visual Shell 2 Percent Visual Shell 3 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 5 Percent Visual Shell 4 Percent Visual Shell 5 Percent Visual Shell 5 Percent Visual Shell 6 Percent Visual Shell 7 Percent Visual Shell 7 Percent Visual Shell 8 Percent Visual Shell 9 P	in ATORY CATION 				Abbrev	iations:		