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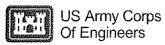
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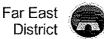
EXPLORATION LOG HOLE NO. E11-114



PROJE LOCAT DATE S DRILLIN DRILLIN OVERB COORE GROUN TYPE O	ION: START NG ME NG AG URDE DINAT ND CC	Camp TED: _ ETHOD SENCY EN THI ES: N: OVER:	Carrol /EQUIF : CKNES 3,983,5 Grass	12 Jul PMENT: BI SS:	111 : <u>BEC5</u> EC	FINIS 50PM-1 HOLE DEP1 504.1 GRO	HED:	12 Jul 11 : 5.5 cm 8.4 m 50.44 m	_ DRIL _ TOTA _ WAT _ DATI	AL DEPTH: ER DEPTH: UM:	No Water; AD
ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER	GRAPHIC LOG CONTAMINATED	BLOW COUNT	SPT N-VALUE	USCS/ STRATA	I	DESCRIPTION OF	MATERIALS		FIELD DATA	LAB DATA
501	S1				FILL	Sand (max.4.8i material (SM). CLAYEY SAND (max.2cm); abo	mm); about 30% Fi	t 70% fine to coarse ines; no plasticity, fill subangular fine grav irse Sand (max.4.8m c).	/el 'el 'm');	%Recovery = 100 PID = 0.9ppm FC = F3 %Recovery = 100 PID = 1.4 - 2.2ppm FC = F3	
492						About 70% fine	to coarse Sand; a	bout 30% Fines.		%Recovery = 79 PID = 3.1 - 5.4ppm	1
474	\$3			WORLD THE TRACE		About 3% suba to coarse Sand	ngular fine gravel (about 30% Fines.	max,2cm); about 67%			
45—_	54			-	CI.	fine to coarse S medium plastici CLAYEY SAND:	and (max.4.8mm); ty; alluvial soil. brown; moist; abo (max.4.8mm); abo	about 30% subangula about 70% Fines; out 60% subangular f ut 40% Fines; mediu	er Fine	%Recovery = 69 >ID = 0 - 6.7ppm	
43—					SM	coarse Sand (m Hard pushing of Pressure)= 700	ax.4.8mm); about : sampler at 8-8.4 i psi.	75% subangular tine 25% Fines; residual m; HDP (Hydraulic D (Penetration speed =	soil. Iown		
						/ 5min).					

ENVIRO-EXPLORATION LOG 11-032E GPJ USACE SKOREA.GDT 7/22/11

EXPLORATION LOG HOLE NO. E11-115



PROJECT: Phase I Site Soil Sampling G&EE NO.: _ LOCATION: Camp Carroll 11-032E INSPECTOR: DATE STARTED: 13 Jul 11 FINISHED: 13 Jul 11 DRILLER: DRILLING METHOD/EQUIPMENT: BEC50PM-1 5.5 cm DRILLING AGENCY: _ HOLE DIAMETER: __ TOTAL DEPTH: 9.4 m WATER DEPTH: **OVERBURDEN THICKNESS:** DEPTH DRILLED: 9.4 m 7.0 m; AD COORDINATES: N: 3,983,539.7 E: 447,614.0 GROUND ELEV.: 50.57 m DATUM: MSL GROUND COVER: Grass CONTAMINATION: TYPE OF HOLE: Piezometer ☐ Monitoring Well ☐ Test Pit ☐ Auger Hole X other Direct push sampling hole SAMPLE TYPE / NUMBER CONTAMINATE BLOW COUNT ELEVATION / DEPTH (meters) GRAPHIC LOG SPT N-VALUE DESCRIPTION OF MATERIALS FIELD DATA LAB DATA USCS / STRATA %Recovery = 100 SILTY SAND: brown; moist; about 5% subangular fine gravel (max.2cm); about 65% subangular fine to coarse PID = 5.7ppm FC = <u>F3</u> Sand; about 30% Fines; no plasticity; fill material (SM). 50 %Recovery = 100 PID = 0 - 1.3ppmFILL CLAYEY SAND: brown; moist; about 10% subangular fine to coarse gravel (max.3cm); about 60% subangular fine to coarse Sand; about 30% Fines; medium plasticity; fill FC = F3**S2** material (SC). About 3% subangular fine to coarse gravel (max.3cm); about %Recovery = 98 PID = 3.7 - 8.4ppm 67% subangular fine to coarse Sand, about 30% Fines. 48-Reddish brown. 47 SILTY SAND: brown; moist; about 70% subangular fine to coarse Sand (max.4.8mm); about 30% Fines; low plasticity; 46-%Recovery = 86 PID = 1.4 - 10.5ppm 45 ML SANDY SILT: brown; moist; about 30% subangular fine Sand; about 70% Fines; medium plasticity, residual soil. SM SILTY SAND: light brown; moist; about 80% subangular fine to coarse Sand (max.4.8mm); about 20% Fines; no plasticity; residual soil. 43 Hard pushing of sampler at 9-9.4 m; HDP (Hydraulic Down Pressure) = 1000 psi. Penetration refusal depth = 9.4m (Penetration speed = 5cm

ENVIRO-EXPLORATION LOG 11-032E GPJ USACE SKOREA.GDT 7/22/1

EXPLORATION LOG HOLE NO. E11-116

Far East District



PROJE				oil Sam	oling							
LOCAT				12 1	1 1 1		G&EE NO.:	11	1-032E		PECTOR:	_
DATES				<u>ul 61</u> ⊤וא⊐ו∧וכ	· DEC	 50PM-1	INISHED: _	13	Jul I I	DKI	LLER:	
							IOLE DIAMET	rep.	5.5 cm	TO	ΓAL DEPTH: _	9.7 m
							EPTH DRILL					7.24 m; AD
							ROUND ELE				TUM:	
GROUN							CONTAMINAT			۵, (۱		
TYPE C					☐ Mon	itoring Wel			ther <u>Direct push</u>	sampling hole		
	Т.	г	T	,	1	T					.	
ELEVATION / DEPTH (meters)	E TYPE	GRAPHIC LOG CONTAMINATED	BLOW COUNT	ш			DESCRIPTIO	N OF MA	TERIALS		FIELD DATA	LAB DATA
LEVA] EPTH neters)	SAMPLE	GRAPHIC LOG CONTAMIN	MOT	SPT N-VALUE	USCS / STRATA							
тО _€	σZ	0.5 0	œ	σz		1					-	
	S1				FILL	gravel (m Sand (ma	AND: brown; moist; nax,2cm); about 72° ax,4.8mm); about 2	% suband	ular fine to coarse		%Recovery = 100 PID = 0ppm FC = F3	"
50-						material About 10 subangul	(SM). % subangular fine (lar fine to coarse Sa	gravel (m: and (max.	ax.2cm); about 65% 4.8mm); about 25%	,	%Recovery = 100 PID = 0ppm	
 1 	S 2					Fines. About 5% subangul	6 subangular fine gr far fine to coarse Sa	ravel (max	x.1cm); about 65% 4.8mm): about 30%	,		
49—						Fines.			, , , , , , , , , , , , , , , , , , ,			
2					FILL	to coarse	SAND: brown; mois	st; about 7	70% subangular fin 80% Fines; medium	e	%Recovery = 92 PID = 0 - 4.6ppm	
48—		 				plasticity;	; fill material (SC).					
-3												
1	S3											
474		 			SM	SILTY SA	<u>WD</u> : brown; moist;	about 70%	% subangular fine to	,		
-						coarse Sa residual s	and (max.4.8mm); a	about 30%	6 Fines; no plasticit	y,		
46—			İ								0/5	
-						Sandy silt	layer encountered	at 5.3-5.4	łm.		%Recovery = 85 PID = 0.4 - 2.6ppm	
45—												
-6												
44-												
-7	. ▼											
43—	34											
-8												
-										İ		
429						Hard push	ning of sampler at §	9-9.7 m; H	IDP (Hydraulic Dov	vn		
-				,			= 1000 psi.		.,	1		
ı L		1.1.1		<u> </u>	<u> </u>	Penetratio	n refusal depth = 9	9.7m (Pen	netration speed = 50	cm I		

ENVIRO-EXPLORATION LOG 11-032E.GPJ USACE SKOREA.GDT 7/22/11

EXPLORATION LOG HOLE NO. E11-117

Far East District



	CT: Phas							
LOCAT	ION: <u>Can</u>	ap Carro	14 1	1 1 1	G&EE NO.: FINISHED:1	11-032E		and the second of the second
	NG METH					[4 JUI I]	DRILLER:	
					HOLE DIAMETER:	5.5 cm	TOTAL DEPTH: _	10.0 m
					DEPTH DRILLED:			
					21.3 GROUND ELEV.:		DATUM:	MSL
GROUN	ID COVER	R: <u>Grass</u>			CONTAMINATION:			
TYPE C	F HOLE:	∐ Piezor	neter	∐ Mon	toring Well	☐ Auger Hole	X other Direct push	sampling hole
ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER GRAPHIC LOG	CONTAMINATED BLOW COUNT	SPT N-VALUE	USCS / STRATA	DESCRIPTION OF N	MATERIALS	FIELD DATA	LAB DATA
510	51			FILL	SILTY SAND: brown; moist; about coarse Sand (max.4.8mm); about 2	75% subangular fine 25% Fines; no plastic	ity; PID = 0.9ppm	
+	-	{ 			fill material (SM). About 10% subangular fine to coan about 65% subangular fine to coan	se gravef (max.3cm);	FC = F3 %Recovery = 96	_
	│	3			about 25% Fines.		''	
50———1	52	 			About 3% subangular fine gravel (n subangular fine to coarse Sand (m	nax.1cm); about 67% ax.4.8mm); about 30'	%	
+					Fines.			
492								
49 -				FILL	CLAYEY SAND: brown; moist; about gravel (max.2cm); about 67% suba	ngular fine to coarse	PID = 0.1 - 3.5ppm	
					Sand (max.4.8mm); about 30% Fin material (SC).	es; medium plasticity	r, 1111	
483								
40-								
+	S3 XX							
47——4							.	
4/					Reddish brown; about 3% subangul about 57% subangular fine to coars	lar fine gravel (max.2 se Sand (max.4.8mm	cm););	
+				sc	about 40% Fines. CLAYEY SAND: reddish brown; mo	ist; subangular fine to		
465					coarse Sand (max.4.8mm); mediun	n plasticity, residual s		
40							%Recovery = 86 PID = 0 - 2.3ppm	
45—6				- CO	A.F. 180 . A. 200	. 700/		
45				SM	SILTY SAND: light brown; moist; ab fine to coarse Sand (max.4.8mm); a			
+ [plasticity; residual soil.			
447								
	S4 🕎							
438					David business			
~					Dark brown.			
+	科科							
429					Proun			
76					Brown. Hard pushing of sampler at 9.7-10.	ß m: HDP /Hidrantia		
+					Down Pressure) = 1000 psi. Penetration refusal depth = 10.0m (
L ₁₀ L	탈인하				10cm / 30sec).			1

EXPLORATION LOG

HOLE NO. **E11-118**



PROJECT: LOCATION	: Camp	Carroll			G&EE NO.: FINISHED:	11-032E 12 Jul 11	INSP DRIL	ECTOR:	A CONTRACTOR OF THE PROPERTY O
DRILLING						14 (UI XX	D(VIL		
GROUND	DEN THI ATES: N: COVER:	CKNES <u>3,983,5</u> <u>Dirt</u>	S: <u>42.6</u> E	: 447,0	GROUND ELEV CONTAMINATION	D: <u>8.9 m</u> '.: <u>51.68 m</u> DN:	WAT DATU	JM:	No Water; AD MSL
TYPE OF H	IOLE: L	_J Piezom	eter	∐ Moni	toring Well	☐ Auger Hole	≥ oth	ner <u>Direct push</u> :	sampling hole
ELEVATION / DEPTH (meters)	CRAPHIC LOG CONTAMINATED	BLOW COUNT	SPT N-VALUE	USCS / STRATA	DESCRIPTION	OF MATERIALS		FIELD DATA	LAB DATA
51— s		**************************************		FILL	Poorly-graded GRAVEL with to moist; about 75% angular fil (max.3cm); about 15% fine to Fines; no plasticity, fill materia SILTY SAND: brown; moist; at 70% subangular fine to coarse material (SM). SILTY SAND with Gravel: light fine to coarse gravel; about 50 15% Fines; no plasticity. Brown; about 15% fine to coarse coarse Sand; about 15% Fines.	ne to coarse gravel coarse Sand; about 10% I (GP-GM). l (GP-GM). sout 5% fine gravel; about 35% Fine: t brown; moist; about 35% fine to coarse Sand; se gravel; about 70% fir	nut s; fill F 5% about ne to	%Recovery = 90 >ID = 0.2ppm %Recovery = 90 >ID = 0.5 - 46.0ppm	
493			THE PROPERTY OF THE PROPERTY O		About 2% fine gravel; about 68 30% Fines. Clayey sand layer encountered Light brown; about 70% fine to Fines.	at 2.6-2.8m	F	%Recovery = 97 PID = 0 - 12.0ppm	
48			A	FJLL.	CLAYEY SAND: light brown; m medium Sand; about 40% Fine (SC). SILTY SAND: light brown; mois	s; low plasticity; fill mat			
46-				SIVI	Sand; about 30% Fines; residu	t, abbut 70% lane to cos	%	6Recovery = 100 ID = 0.5 - 2.0ppm	
457			- Proportion		Brown to dark brown. Grayish brown grades to light b	rowa.	- I - I - I - I - I - I - I - I - I - I		
44			West		Grayish blown grades to light b	IOWIT.			
43-					Hard pushing of sampler at 8.5 Down Pressure)= 1400 psi. Penetration refusal depth = 8.9		İ		
					10cm / 8min).	(- Silvardardii apoeti =			

ENVIRO-EXPLORATION LOG 11-032E.3PJ USACE SKOREA,GDT 7/22/11

EXPLORATION LOG HOLE NO. E11-119



PROJE	CT:	Phase I	Site So	oil Sam	pling					
LOCAT	ION:	Camp	Carrol	1		G&EE NO.:	11-032E	_ INS	PECTOR:	
						FINISHED:	13 Jul 11	_ DR	ILLER:	
DRILLII	NG AG	SENCY	:	B	EC	50PM-2 HOLE DIAMETER DEPTH DRILLED			TAL DEPTH: _	7.9 m No Water; AD
						661.0 GROUND ELEV.:				
GROU	ND CC	VER:	<u>Aspha</u>	lt pavei	nent	CONTAMINATIO	N:			
TYPE C)F HO	LE: [] Piezor	neter	☐ Moni	itoring Well	☐ Auger Hole	(X) (other <u>Direct push</u>	sampling hole
ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER	GRAPHIC LOG CONTAMINATED	BLOW COUNT	SPT N-VALUE	USCS/ STRATA	DESCRIPTION O	F MATERIALS		FIELD DATA	LAB DATA
520		***			AC ,	Asphalt pavement thickness = 1			%Recovery = 94	
-	S1	 			FILL	about 75% angular fine to coars	e gravel (max.3.5cm); a	about	PID ≈ 2,4ppm FC = F1	
		XXX				15% fine to coarse Sand (max.4 plasticity, fill material (GP-GM).		- 1	\FC = F3 %Recovery = 84	<i></i>
51— -	S2					SILTY SAND: brown; moist; abort coarse gravel (max.3cm); about coarse Sand (max.4.8mm); abortill material (SM).	65% subangular fine to	D	PID = 1.3 - 2.0ppm	
502									%Recovery = 90 PID = 1.1 - 1.8ppm	
_						Clayey sand layer encountered a	t 2 8.3 Am			
49-3					SC	CLAYEY SAND: reddish brown; r subangular fine to coarse Sand;	noist; about 60%	dual		
-	83					soil; granite texture.				
484					SM	SILTY SAND: brown; moist; about coarse Sand (max.4.8mm); about				
-						residual soil.				
47									%Recovery = 100 PID = 0.7 - 1.8ppm	
-6										
46—	54									
-7										
45						Hard pushing of sampler at 7.8-7	7.9m; HDP (Hydraulic I	Down		
1 [441				Pressure) = 1400 psi. Penetration refusal depth = 7.9m	(Penetration speed =	7cm		
						/ 5min).	, susuada, apood -			
									•	

EXPLORATION LOG HOLE NO. E11-120

Far East District



LOCAT DATE S DRILLII DRILLII OVERE COORI	ECT: Phase I Site STON: Camp Carro STARTED: STARTED: NG METHOD/EQUING AGENCY: SURDEN THICKNE DINATES: N: 3,983,	II	INSPECTOR: DRILLER: TOTAL DEPTH: WATER DEPTH: DATUM:	No Water; AD		
1	ND COVER: <u>Grass</u> OF HOLE: Piezo		CONTAMINATI		X other <u>Direct push</u>	sampling hole
ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER GRAPHIC LOG CONTAMINATED BLOW COUNT	SPT N-VALUE USCS/	DESCRIPTION	OF MATERIALS	FIELD DATA	LAB DATA
-0	S1 0 0 0	ML	90% Fines; low plasticity, res	idual soil. ist: about 70% subanoula	PID = 0.3ppm FC = F4	
48—————————————————————————————————————	S2		Hard pushing of sampler at 3. Down Pressure) = 1000 psi. Penetration refusal depth = 3. / 5min).			

EXPLORATION LOG HOLE NO. E11-121





	PROJE	CT: <u>]</u>	<u>Phase I</u>	Site So	oil Samı	ling							
	LOCAT							G&EE NO.:			_ INS	PECTOR: 🔟	
	DATE S							FINISHED:	1;	5 Jul 11	DRI	LLER:	,
	DRILLIN						50PM						
	DRILLIN					3C						TAL DEPTH: _	
	OVERB							DEPTH DRI					No Water; AD
						: <u>447,5</u>	<u>592.9</u>	GROUND EI			_ DA1	ГUМ:	MSL
	GROUN					~~~.		CONTAMINA			678		*
	TYPE O	r HO	LE: L	_ Piezon	neter	☐ Moni	itoring \	Well ☐ Test	Pit L	☐ Auger Hole	IXI (other <u>Direct push</u>	sampling hole
	ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER	GRAPHIC LOG CONTAMINATED	BLOW COUNT	SPT N-VALUE	USCS/ STRATA		DESCRIPT	TION OF M	ATERIALS		FIELD DATA	LAB DATA
۱,	49{0					FILL		Y SAND with Grave				%Recovery = 100	
4	181	S1				SM	SILT fine to plasti	ngular fine to coarse ngular fine to coarse s; no plasticity, fill many y SAND: light brown to coarse Sand (maxicity, residual soil.	e gravel (ma e Sand (ma aterial (SM) ; moist; ab .4.8mm); a	ax.3cm); about 60% x.4.8mm); about 2: bout 70% subangula bout 30% Fines; n	6 5%	PID = 0.5ppm FC = F3 %Recovery = 85 PID = 0.4ppm FC = F3	
							/ 5min	ration refusal depth a).	- Z, (III (F	eneraron speed	- 5611		

EXPLORATION LOG HOLE NO. E11-122



PROJE	CT:	Phase I	Site So	oil Samp	oling				
LOCAT	ION:	Camp	Carrol	1		G&EE NO.:	11-032E	_ INSPECTOR: _	
DATE S		_		14 Ju		FINISHED: 50PM-1	14 Jul 11	DRILLER:	
DRILLI					EC EC		ER: <u>5.5 cm</u>	TOTAL DEPTH:	9.3 m
OVERB						DEPTH DRILLI		WATER DEPTH:	6.69 m; AD
					: 447,	617.3 GROUND ELE		_ DATUM:	MSL
GROUN					[] N. 4	CONTAMINATI		nee //	
TYPE C)F HOI	_E:	J Piezon	neter	∐ Mon	itoring Well	☐ Auger Hole	X other Direct push	sampling hole
ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER	GRAPHIC LOG CONTAMINATED	BLOW COUNT						
VATI ers)	IPLE 1BEF	PHIC	ŏ ≩	SPT N-VALUE	USCS / STRATA	DESCRIPTION	OF MATERIALS	FIELD DATA	LAB DATA
ELE OEP (met	SAN	GRAPHIC LOG CONTAMIN	BLO	SPT N-V	USC				
500	51	XXX			FILL	CLAYEY SAND: brown; mois to coarse gravel (max.3cm);	t; about 3% subangular t	Fine %Recovery = 100 ne to PID = 0ppm	
Ĺ	51	XXX				coarse Sand; about 30% Fine		FC = F3	
-					SM	material (SC). SILTY SAND: reddish brown;		/ %Recovery = 97 PID = 0 - 0.1ppm	
49—						subangular fine to coarse Sa Fines; residual soil.	na (max.4.8mm); about î	25% FC = F3	
	S2								
-									
-2								%Recovery = 94	
18-						A-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1		PID = 0.4 - 0.9ppm	١
<u></u>									
_3								f	
17						Light brown,			
}	S3								
7.									
164									
-									
-									
5——5								%Recovery = 58	
								PID = 0.3 - 3.5ppm	
-								4	
4			İ						
'				ĺ					
-	▼:				4				
_ _7				1		With granite rock fragments.			
3	S4					Transgramme rook tragments.			
		1 [:] [
8	ľ								
2									
<u> </u>									
9						Hard pushing of sampler at 9	-9.3 m; HDP (Hvdraulic l	Down	
1	[:]	649				Pressure) = 1000 psi. Penetration refusal depth = 9	(i iyaraako l		

EXPLORATION LOG HOLE NO. E11-123



DATE S DRILLI DRILLI OVERE COORI GROUI	ION: CANTE STARTE NG MET NG AGE SURDEN DINATES	amp Ca D: HOD/EC NCY: _ THICKI S: N: 3.9 ER: Gr	NESS:	111 : <u>BEC:</u> EC : <u>447,6</u>	FINISHED:	15 Jul 11 ER: <u>5.5 cm</u> ED: <u>7.7 m</u> V.: <u>50.38 m</u> ION:	WATER DEPTH:	7.32 m; AD MSL
ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER GRAPHIC	CONTAMINATED	SPT N-VALUE	USCS / STRATA	DESCRIPTIO	N OF MATERIALS	FIELD DATA	LAB DATA
50————————————————————————————————————	\$1 \$2 \$3			FILL	CLAYEY SAND: grayish brown subangular fine gravel (max. fine to coarse Sand (max. 4.8 medium plasticity; fill materi SILTY SAND: brown; moist; coarse Sand (max. 4.8 mm); residual soil. About 80% subangular fine to about 20% Fines.	2cm); about 40% Fines; al (SC). about 70% subangular fin about 30% Fines; no plast	FC = F3 FC = F3 FC = F3 Recovery = 100 PID = 1.7 - 3.3ppm **Recovery = 95 PID = 2.1 - 3.8ppm **Recovery = 91 PID = 2.4 - 4.5ppm	
44 43 44 47 7 7 7 7 7 7 7 7 7 7 7 7 7 7			-		Penetration refusal depth = 7 / 5min).	7.7m (Penetration speed =		

EXPLORATION LOG



HOLE NO. IIII-124											
PROJE											
LOCAT	ION:	<u>Camp</u>	Carroi	<u> </u>		G&EE NO.:	11-	032E	INSPE		
DATES	START	ED:		13 Ju	<u> </u>	FINISHED:	13.	lul 11	DRILL	ER:	
						50PM-2				· DEDTII	# A#
						HOLE DIAM					
						DEPTH DRI					
						GROUND E			DATU	M:	MIST
TYPE	NE HOI	F. [Diezon	 aeter	☐ Moni	CONTAMIN. Itoring Well	t Pit	Auger Hole	IXI othe	er <u>Direct push s</u>	amoling hole
, ,, ,	1		J 1 102011	I	1 (10)	Total 100			Was out	or <u>Direct public</u>	T T T T T T T T T T T T T T T T T T T
ELEVATION / DEPTH (mefers)	TYPE/	GRAPHIC LOG CONTAMINATED	BLOW COUNT								
S) (S	19.6	GRAPHIC LOG CONTAMINA	8	쀵	≰	DESCRIP'	TION OF MAT	ERIALS		FIELD DATA	LAB DATA
EPTI efer	SAMPLE	A S S S S S S S S S S S S S S S S S S S	Ŋ,	SPT N-VALUE	USCS / STRATA						
	ิดัฆี	호의 당	<u> </u>	15 ±	ĭ.						
\Box					FILL	SILTY SAND with Grave subangular to angular fir	: brown; mois	t; about 15%	. %	Recovery = 100	
Ĺ	S1	₩		İ		about 65% subangular fi	ne to coarse S	and (max.4.8mm); F(ID = 1,2ppm C = F3	
1		XXX				about 20% Fines; no pla About 5% fine to coarse	gravel (max.3c	m): about 80%	% PI	Recovery = 100 ID = 0.2 - 39.3ppm	
1		‱				subangular fine to mediu	ım Sand; aboul	15% Fines.		c co.oppill	
-	S2	₩ l				Light brown to brown.					
-		₩ l	:								
){		₩ l									
-2		XXX			SM	SILTY SAND: brown; mo	ist; about 70%	subangular fine	to %	Recovery = 100	
1						coarse Sand (max.4.8mr residual soit.	n); about 30%	Fines; no plastic	ity; PI	ID = 0.3 - 1.8ppm C = F3	
. -						. soludar 3011.			1"	J - 1 U	
_3											
	S3 -		İ								
_ ["										
_4											
-											
-											
-5										Recovery = 100	
1									PI	D = 0 - 0.9ppm	
_											
		111									
16	S4 .				ļ	Dense; Hard pushing of s speed = 5cm / 5min).	sampler at 6.5	m (Penetration			
	-					-r oom ommy.					
-		134									
7					Į	Hard pushing of sampler	at 70-735 m	· HDP (Hudrautin			
1 [Down Pressure) = 1400 p	si.				
_					_	Penetration refusal depth 5cm / 10min).	= 7.35m (Pen	etration speed =	-		
						•					

EXPLORATION LOG HOLE NO. E11-125



	PROJE	CT.	Phase	I Site So	oil Sam	pling					
				<u>Carrol</u>			G&EE NO.:			PECTOR:	
	DATE					111		14 Jul 11	_ DRI	LLER:	
				D/EQUIF				D:	TOT	AL DEPTH:	2.53 m
				ICKNES			HOLE DIAMETEI DEPTH DRILLEE				1.63 m; AD
							621.7 GROUND ELEV.	+		UM:	MSL
				Grass			CONTAMINATIO				1/12/22
				☐ Piezon		☐ Mon	itoring Well	☐ Auger Hole	X o	ther <u>Direct push</u>	sampling hole
	ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER	GRAPHIC LOG	BLOW COUNT	SPT N-VALUE	USCS/ STRATA	DESCRIPTION C	OF MATERIALS		FIELD DATA	LAB DATA
	50	51			-	FLL	SILTY SAND: brown; moist; sub 65% fine to medium Sand; abou (SM).	oangular fine gravel; ab ut 35% Fines; fill materi	out ial	%Recovery = 100 PID = 0ppm	
	_					SM	SILTY SAND: brown; moist; abo medium Sand; about 30% Fines granite texture.	out 70% subangular fine s; no plasticity, residual	e to I soil;	%Recovery = 100 PID = 0 - 0.5ppm	
	-1	\$2									
	49	¥				ROCK	Hard pushing of sampler at 1.3 Down Pressure) = 1400 psi, Penetration refusal depth = 1.5 4cm / 5min), GRANITE: light brown mottled v	6m (Penetration speed	· <u> </u>		
	-2						weathered to moderately weather at the sampler shoe Percussion drilling at 1.5 - 2.5m		chips		1
	48—										
	,						Penetration speed = 3cm / 5min	at 2.5m.			
2/11											
Z/2											
A.GD						•					
S R R											
SBO											
ASD .											
E.GP.											
1-032											
8											
ENVIRO-EXPLORATION LOG 11-032E.GPJ USACE SKOREA.GDT 7/22/1											
ORAT											
EXPL											
S S											
ā											



EXPLORATION LOG HOLE NO. E11-126





				I Site So Carrol		oling	G&EE NO.: 11-032E INSPECTOR:
	DATE:					l 11 BEC	FINISHED: 14 Jul 11 DRILLER: C50PM-2
	DRILLI OVERI COOR	NG AC BURDE DINAT	SENCY EN TH ES: N:	/: ICKNES	B) SS: 5 12.9 E	EC	HOLE DIAMETER: 5.5 cm TOTAL DEPTH: 1.83 m DEPTH DRILLED: 1.83 m WATER DEPTH: No Water; AD GROUND ELEV.: 50.88 m DATUM: MSL CONTAMINATION:
				☐ Piezon		☐ Moni	nitoring Well Test Pit Auger Hole other Direct push sampling hole
	ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER	GRAPHIC LOG CONTAMINATED	BLOW COUNT	SPT N-VALUE	USCS/ STRATA	DESCRIPTION OF MATERIALS FIELD DATA LAB DATA
		51				FILL	SILTY SAND: brown; moist; about 2% subangular fine gravel; about 73% fine to coarse Sand; about 25% Fines; fill material (SM); grass roots at 0 - 0.15m. **Recovery = 100 PID = 0ppm**
	50	52				SM	SILTY SAND: brown; moist; about 75% subangular fine to coarse Sand (max.4.8mm); about 25% Fines; no plasticity; residual soil; granite texture. WRecovery = 100 PID = 0 - 0.5ppm
7/22/11				100 A C C C C C C C C C C C C C C C C C C			Hard pushing of sampler at 1.5 - 1.8 m; HDP (Hydraulic Down Pressure) = 1400 psi.
EA.GDT	1	L	اان شاششاا		I		Penetration refusal depth = 1.83m (Penetration speed = 5cm / 5min).
ENVIRO-EXPLORATION LOG 11-032E.GPJ USACE SKOREA.GDT 7/22/1							
ENVIRO-E							



EXPLORATION LOG HOLE NO. E11-127



PROJECT: Phase I Site Soil Sampling LOCATION: Camp Carroll G&EE NO.: 11-032E INSPECTOR: DATE STARTED: 14 Jul 11 FINISHED: 14 Jul 11 DRILLER: DRILLING METHOD/EQUIPMENT: BEC50PM-2 DRILLING AGENCY: BEC HOLE DIAMETER: 5.5 cm TOTAL DEPTH: 2.32 m **OVERBURDEN THICKNESS:** DEPTH DRILLED: 2.32 m WATER DEPTH: No Water; AD COORDINATES: N: <u>3,983,502.4</u> E: <u>447,623.4</u> GROUND ELEV.: **50.45 m** DATUM: **MSL** GROUND COVER: Grass CONTAMINATION: TYPE OF HOLE: Piezometer ☐ Monitoring Well ☐ Test Pit ☐ Auger Hole X other <u>Direct push sampling hole</u> SAMPLE TYPE / NUMBER BLOW COUNT CONTAMINA GRAPHIC LOG SPT N-VALUE DESCRIPTION OF MATERIALS FIELD DATA LAB DATA USCS / STRATA SILTY SAND: grayish brown to brown; moist; about 2% %Recovery = 92 subangular fine gravel; about 60% fine to coarse Sand; about 38% Fines; fill material (SM). SILTY SAND: light brown; moist; about 70% subangular fine to coarse Sand (max.4.8mm); about 30% Fines; no plasticity; residual soil; granite texture. 50-%Recovery = 100 PID = 0ppm Light yellowish brown; w/rock fragments; very dense. 49--2 Hard pushing of sampler at 2.0 - 2.3m; HDP (Hydraulic Down Pressure) = 1300 psi.

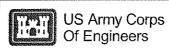
Penetration refusal depth = 2.32m (Penetration speed = 9cm / 5min).

EXPLORATION LOG

Far East District



b6 b6



EXPLORATION LOG HOLE NO. E11-129

Far East District



PROJE	CT:]	Phase I	Site So	oil Samp	oling							
LOCAT							-			-	PECTOR: _	F
DATES							FINISHED: _	15	5 Jul 11	DR	LLER:	b
DRILLIN												
										-	TAL DEPTH: .	
								_				No Water; AD
							GROUND ELI		50.46 m	. DA	ГUМ:	MSL
GROUN									¬	NOA .		
TYPE C	r no	LE: L	_ Piezon	neter	☐ Moni	oring v	Well ☐ Test F	71. L	☐ Auger Hole	izsi (other <u>Direct push</u>	sampling hole
ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER	GRAPHIC LOG CONTAMINATED	BLOW COUNT	SPT N-VALUE	USCS / STRATA		DESCRIPTION	ON OF MA	ATERIALS		FIELD ĐATA	ŁAB DATA
					FILL	SILT	Y SAND: dark brown; i	moist; fill	material (SM); grad	5S	%Recovery = 96 PID = 1.2ppm	
50	S1				SM	fine to	Y SAND: light brown; r o coarse Sand (max.4 city; residual soil; gra	.8mm); at	oout 30% Fines; no	r >		
-					A Section 1	0.65n Hard Down	pushing of sampler at Pressure) = 1300 psi	t 0.6 - 0.75 i,	5m; HDP (Hydrauli			
					ROCK		<u>lITE</u> : grayish brown; h ration refusal depth =			= 1	<u> </u>	

cm / 5min),

ENVIRO-EXPLORATION LOG 11-032E.GPJ USACE SKOREA.GDT 7122/11

EXPLORATION LOG HOLE NO. E11-130

Far East District



PROJECT: Phase I Site Soil Sampling LOCATION: Camp Carroll G&EE NO.: 11-032E INSPECTOR: DATE STARTED: 15 Jul 11 FINISHED: 15 Jul 11 DRILLER: DRILLING METHOD/EQUIPMENT: BEC50PM-2 DRILLING METHOD/EQUIPMENT: BEC50PM-2 DRILLING AGENCY: BEC HOLE DIAMETER: 5.5 cm TOTAL DEPTH: 1.22 m OVERBURDEN THICKNESS: DEPTH DRILLED: 1.22 m WATER DEPTH: No Water; AD COORDINATES: N: 3,983,489,1 E: 447,633.2 GROUND ELEV.: 50,91 m DATUM: MSL GROUND COVER: Grass CONTAMINATION: TYPE OF HOLE: Piezometer Monitoring Well Test Pit Auger Hole Other Direct push sampling hole No United Phase 1 in the Piezometer		14457 						TIOLETTO, J		100				
DESCRIPTION OF MATERIALS FIELD DATA LAB DATA LAB DATA LAB DATA LAB DATA FIELD DATA LAB DATA LAB DATA FIELD DATA LAB DATA LAB DATA FIELD DATA LAB DATA FIELD DATA LAB DATA FIELD DATA LAB DATA FIELD DATA LAB DATA FIELD DATA LAB DATA FIELD DATA FIELD DATA LAB DATA FIELD DATA Hard pushing of sampler at 1 - 1.2m; HDP (Hydraulic Down)	LOCAT DATE: DRILLI DRILLI OVERE COOR! GROU	FION: START NG ME NG AC BURDE DINAT ND CC	Camp TED: _ ETHOD SENCY EN THIC ES: N:	Carrol /EQUIF : CKNES 3,983,4 Grass	15 Jul 15 Jul PMENT: BI SS:	BEC5 EC	533.2	FINISHED: _ -2 HOLE DIAME DEPTH DRIL GROUND EL CONTAMINA	TER: LED: EV.: _ TION:	5.5 cm 1.22 m 50.91 m	TO' WA DA'	ILLER: TAL DEPTH: _ TER DEPTH: TUM:	No W MSL	'ater; AD
SM SILTY SAND: brown; moist; fill material (SM); grass roots. SM SILTY SAND: brown; moist; about 70% subangular fine to coarse Sand; about 30% Fines; no plasticity; residual soif; granite texture. S1 Hard pushing of sampler at 1 - 1,2m; HDP (Hydraulic Down	ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER	GRAPHIC LOG CONTAMINATED	BLOW COUNT	SPT N-VALUE	USCS / STRATA		DESCRIPTI	ON OF M/	ATERIALS		FIELD DATA	***	.AB DATA
Penetration refusal depth = 1.22m (Penetration speed = 5 cm / 5min).		51					SiLT coars granii Hard Press	y SAND: brown; moisse Sand; about 30% File texture. pushing of sampler ature) = 1400 psi.	t; about 70 ines; no p)% subangular fine lasticity; residual s	oit;			

ENVIRO-EXPLORATION LOG 11-032E.GPJ USACE SKOREA.GDT 7/22/11

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Of Engineers

EXPLORATION LOG HOLE NO. E11-131

Far Eas Distric



DRILLIN DRILLIN OVERB COORD	ION: START NG ME NG AG URDE DINATI	Camp FED: _ ETHOD GENCY: EN THIC ES: N:	Carrol /EQUIF CKNES 3,983,4 Aspha	14 Ju PMENT B) SS: 95.6 E	111 : <u>BEC</u> : EC :: <u>447,6</u> nent	50PM-2 	HOLE DIAME DEPTH DRILI BROUND ELI CONTAMINA	TER: _ LED: _ EV.: _ TION:	5.5 cm 1.7 m 51,64 m	TO' WA		No Water; AD MSL
ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER	GRAPHIC LOG CONTAMINATED	BLOW COUNT	SPT N-VALUE	USCS / STRATA	- 1 4 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	DESCRIPTIO	ON OF MA	TERIALS		FIELD DATA	LAB DATA
	S1				AC FILL	Poorly-g gray; mo gravel (n	pavement thicknes raded GRAVEL wi ist; about 75% sub- ax.3.5cm); about as; no plasticity, fill	i th Silt an angular to 15% fine to	d Sand: dark gree angular fine to co o coarse Sand; ab	arse	%Recovery = 92 PID = 0.1ppm FC = F1	
51			***************************************		FILL	coarse gi	AND: brown; moist ravel (max.3cm); a % Fines; fill materi	bout 70%	% subangular fine fine to coarse Sar	to nd;	%Recovery = 100 PID = 0 - 0.4ppm	
-1	S2			177770.	SM	coarse Sa	<u>WD</u> : brown; moist; and (max.4.8mm); ooil; granite texture	about 30%	% subangular fine 6 Fines; no plastic	to ity;		
50-						Down Pre	ning of sampler at ssure) = 1400 psi. on refusal depth =		, ,			
						/ 10min).		·				

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HOLE NO. E11-132





JEO1.	i nase i	DILL D	ni Sain	mag							
	-						15 Jul 11	DR	ILLER:	沙维以外发现	
				EC		HOLE DIAMETEI	R: <u>5.5 cm</u>	TO	OTAL DEPTH: 3.0 m		
								WA	TER DEPTH:		
								DA	TUM:	MSL	
OF HO	LE: [] Piezon	neter	☐ Moni	itoring We	ell 🔲 Test Pit	☐ Auger Hole	X (other <u>Direct push</u>	sampling hole	
Ĕ/	8	<u> </u>	<u> </u>		<u> </u>						
SAMPLE TYF NUMBER	GRAPHIC LOG CONTAMINATI	BLOW COUN	SPT N-VALUE	USCS / STRATA		DESCRIPTION O	F MATERIALS		FIELD DATA	LAB DATA	
	الم			PCC	Cement	concrete pavement thic	ness = 10 cm.				
\$1 \$2				FILL FILL	Poorty- about 60 about 30 Fines; n SILTYS subangus subangus plasticity to coars granite t	graded GRAVEL with S 2% angular to subangula 2% fine to coarse Sand o plasticity, fill material AND: grayish brown to it alar fine to coarse gravel alar fine to coarse Sand; y, fill material (SM). AND: brown to fight brove e Sand; about 30% Fine exture.	It and Sand: gray; or coarse gravel (mamax.4.8mm), about GP-GM), rown; moist; about (max.3cm); about 20% Fines; rw; moist; about 70°s; no plasticity, resi	ax.3cm); 10% 10% 70% no % fine dual soil;	%Recovery = 100 PID = 2.3ppm FC = F1 FC = F3 %Recovery = 99 PID = 0.4 - 2.2ppm		
<u>[</u>	COPA 1	<u> </u>		L	Penetrati / 5min).	on refusal depth = 3.0n	(Penetration speed	d = 5cm			
	ATION: E STAR'	ATION: Camp E STARTED: E STARTED	ATION: Camp Carrol E STARTED: LING METHOD/EQUIF LING AGENCY: RBURDEN THICKNES RDINATES: N: 3,983,4 UND COVER: Cemer OF HOLE: Piezon 100 100 100 100 100 100 100 100 100 1	ATION: Camp Carroll E STARTED: 15 Ju E S	ESTARTED: 15 Jul 11 LING METHOD/EQUIPMENT: BECS LING AGENCY: BEC RBURDEN THICKNESS: RDINATES: N: 3,983,481.4 E: 447,6 UND COVER: Cement concrete FOF HOLE: Piezometer Monitor Roll Piezometer Roll Piezometer	ATION: Camp Carroll E STARTED: 15 Jul 11 LING METHOD/EQUIPMENT: BEC50PM-2 LING AGENCY: BEC RBURDEN THICKNESS: RDINATES: N: 3,983,481.4 E: 447,639.7 (December of the concrete of the concr	ATION: Camp Carroll E STARTED: 15 Jul 11 FINISHED: LING METHOD/EQUIPMENT: BECSOPM-2 LING AGENCY: BEC HOLE DIAMETER DEPTH DRILLED DEPTH DRILLED DEPTH DRILLED CONTAMINATION COF HOLE: Piezometer Monitoring Well Test Pit DESCRIPTION OF STAND GRAVE with 51 About 60% angular to subangula about 30% fine to coarse grave subangular fine to coarse grave subangular fine to coarse grave subangular fine to coarse grave subangular fine to coarse sand; plasticity, fill material (SILTY SAND: grayish brown to b subangular fine to coarse sand; plasticity, fill material (SM). SM SILTY SAND: brown to light brow to coarse Sand; about 30% fine to coarse Sand; plasticity, fill material (SM). SM SILTY SAND: brown to light brow to coarse Sand; about 30% Fines to coarse	ATION: Camp Carroll G&EE NO.: 11-032E E STARTED: 15 Jul 11 LING METHOD/EQUIPMENT: BECSOPM-2 LING AGENCY: BEC HOLE DIAMETER: 5.5 cm BBURDEN THICKNESS: DEPTH DRILLED: 3.0 m RDINATES: N: 3,983,481.4 E: 447,639.7 GROUND ELEV: 51.21 m UND COVER: Cement concrete CONTAMINATION: OF HOLE: Piezometer Monitoring Well Test Pit Auger Hole POC Cement concrete pavement thickness = 10 cm. FILL Poorly-graded GRAVEL with Silt and Sand: gray. About 50% angular to subangular coarse gravel (ma. about 30% fine to coarse Sand (max.4 cmm); about subangular fine to coarse Sand; max.4 cmm); about subangular fine to coarse Sand; max.5 cm; about 70 to coarse Sand; about 20% Fines; ro plasticity; fill material (SM). SM SILTY SAND: brown to light brown; moist; about 70 to coarse Sand; about 20% Fines; ro plasticity; resignating (SM). Hard pushing of sampler at 2.7-3.0m; HDP (Hydrau Pressure) = 1400 psi. Penetration refusal depth = 3.0m (Penetration speecents)	ATION: Camp Carroll G&EE NO.: 11-032E INS ESTARTED: 15 Jul 11 FINISHED: 15 Jul 11 DR LING METHOD/EQUIPMENT: BECSOPM-2 LING AGENCY: BEC HOLE DIAMETER: 5.5 cm TO REPTH DRILLED: 3.0 m WA RDINATES: N: 3.983,481.4 E: 447,639.7 GROUND ELEV.: 51.21 m DA UND COVER: Cement concrete CONTAMINATION: E OF HOLE: Piezometer Monitoring Well Test Pit Auger Hole DE CONTAMINATION: FILL POOTY-graded GRAVEL With Bit and Sand gray dry, about 30% fine to coarse Sand (max.4 bmm), about 10% Fines; no plasticity, fill material (SM). SM SILTY SAND: grayish brown to brown; moist; about 70% fine to coarse Sand; about 20% Fines; no plasticity, fill material (SM). SM SILTY SAND: prown to light brown; moist; about 70% fine to coarse Sand; about 20% Fines; no plasticity, fill material (SM). Hard pushing of sampler at 2.7-3.0m; HDP (Hydraulic Down Pressure) = 1400 psi. Penetration refusal depth = 3.0m (Penetration speed = 5cm)	ATION: Camp Carroll STARTED: 15 Jul 11 STARTED: 15 Jul 11 FINISHED: 15 Jul 11 FINISHED: 15 Jul 11 RECSOPM-2 LING METHOD/EQUIPMENT: BECSOPM-2 LING AGENCY: BEC HOLE DIAMETER: 5.5 cm TOTAL DEPTH: WATER DEPTH: DATUM: WATER DEPTH: DATUM: DESCRIPTION OF MATERIALS FIELD DATA PCC Cement concrete pavement thickness = 10 cm. Packed of Market Starter Start	

ENVIRO-EXPLORATION LOG 11-032E.GPJ USACE SKOREA.GDT 7/22/11





LOCATIO DATE ST. DRILLING DRILLING OVERBUI COORDIN GROUND TYPE OF	ON: <u>Camp Car</u> ARTED: G METHOD/EQ G AGENCY: RDEN THICKN NATES: N: <u>3,98</u>	15 Jul 11 UIPMENT: BEC BEC IESS: 3,467.3 E: 447 nent concrete zometer	G&EE NO.: 11-032E INS FINISHED: 15 Jul 11 C50PM-2 HOLE DIAMETER: 5.5 cm TO DEPTH DRILLED: 2.46 m WA C626.8 GROUND ELEV.: 50.93 m DA CONTAMINATION: DIAMETER: 5.5 cm TO WARD AND TO TO TO TO TO TO TO TO TO TO TO TO TO	SPECTOR: RILLER: TAL DEPTH: ATER DEPTH: No Water; TUM: MSL other Direct push sampling hole
DATE ST. DRILLING DRILLING OVERBUI COORDIN GROUND TYPE OF	ARTED: G METHOD/EQ G AGENCY: RDEN THICKN NATES: N: 3,98 C COVER: Cen HOLE: Pie	15 Jul 11 UIPMENT: BEC BEC IESS: 3,467.3 E: 447 nent concrete zometer	FINISHED: 15 Jul 11 DR C50PM-2 HOLE DIAMETER: 5.5 cm TO DEPTH DRILLED: 2.46 m WA C626.8 GROUND ELEV.: 50.93 m DA CONTAMINATION: Districtioning Well Test Pit Auger Hole	TAL DEPTH: 2.46 m ATER DEPTH: No Water; TUM: MSL
DRILLING DRILLING OVERBUI COORDIN GROUND TYPE OF www.e.z.voe.	METHOD/EQ G AGENCY: RDEN THICKN NATES: N: 3,98 D COVER: Cen HOLE: ☐ Pie	UIPMENT: BEC BEC IESS: 3,467.3 E: 447 nent concrete zometer	C50PM-2 HOLE DIAMETER: 5.5 cm TO DEPTH DRILLED: 2.46 m WA 4.626.8 GROUND ELEV.: 50.93 m DA CONTAMINATION: Onitoring Well Test Pit Auger Hole	TAL DEPTH: 2.46 m ATER DEPTH: No Water; TUM: MSL
ELEVATION / DEPTH (meters)	RDEN THICKN NATES: N: 3,98) COVER: Cen HOLE: ☐ Pie	IESS:	DEPTH DRILLED: 2.46 m WA 7,626.8 GROUND ELEV.: 50,93 m DA CONTAMINATION: printoring Well	ATER DEPTH: No Water; TUM: MSL
COORDIN GROUND TYPE OF (meters)	NATES: N: 3,98 COVER: Cen HOLE: □ Pie	33,467.3 E: 447 nent concrete zometer	CONTAMINATION: CONTAMINATION: Dinitoring Well	TUM: MSL
ELEVATION / DEPTH (meters)	COVER: Cen	nent concrete zometer	CONTAMINATION: pnitoring Well	
ELEVATION / DEPTH (meters)	HOLE: Pie	zometer 🗌 Ma	onitoring Well	other <u>Direct push sampling hole</u>
	WMBER WMBER SRAPHIC OG ONTAMINATED LOW COUNT	-UE		
	SAMPLE I STAPHIC OG CONTAMINA	-UE -T	DESCRIPTION OF MATERIALS	
	SRAPI SRAPI OG LOW	1 1 1 1 1 1 1 1 1 1 1 1	DESCRIPTION OF MATERIALS	FIELD DATA LAB DA
	2 - 1 10 - 121	SPT N-VALUE USCS / STRATA		
(T)		బొవ పోట		
	200	PCC		50 - 54
	XX	FILL		FC = F1 %Recovery = 90 PID = 0.9ppm
_	S1		material (GP).	FC = F3
-			SILTY SAND: brown; moist; about 10% subangular fine to coarse gravel; about 60% subangular fine to coarse Sand;	
		SM	about 30% Fines; no plasticity; fill material (SM). SILTY SAND: brown; moist; about 70% fine to coarse	%Recovery = 100
50-			Sand; about 30% Fines; no plasticity, residual soil; granite texture.	PID = 0.1 - 1.7ppm
"·····				
+				
	\$2			
92				
			Very dense; w/rock fragments.	
			Hard pushing of sampler at 2.2-2.45m; HDP (Hydraulic Down Pressure) ≍ 1400 psi.	
- L			Penetration refusal depth = 2.46m (Penetration speed =	
			1cm / 5min).	



HOLE NO. E11-134



DATE S DRILLII DRILLII OVERE COORI	ECT: Phase I TION: Camp STARTED: ING METHOD ING AGENCY: BURDEN THI DINATES: N: ND COVER:	Carroll O/EQUIF CKNES 3,983,4	II 16 Ju PMENT: BI SS:	d 11 : BEC: EC	FINISHED: 16 Jul 11 50PM-2 HOLE DIAMETER: 5.5 cm DEPTH DRILLED: 3.0 m	INSPECTOR:	
	SAMPLE TYPE / HONOMBER GRAPHIC IDG	Piezom	SPT SPT N-VALUE	USCS / IUOW	itoring Well	X other <u>Direct push</u>	sampling hole LAB DATA
50	S1 S2			FILL	Poorly-graded GRAVEL: gray, moist; about 1% fine to coarse gravel (max.3cm); about 59% fine to coarse Sand; about 40% Fines; fill material (GP). SILTY SAND: brown; moist; about 5% subangular fine gravel; about 70% fine to coarse Sand; about 25% Fines; plasticity; fill material (SM). SILTY SAND: brown; moist; about 70% fine to medium Sand; about 30% Fines; residual soil. CLAYEY SAND: light brown; moist; about 65% fine to coarse Sand; about 35% Fines; low plasticity; residual soil granite texture. Hard pushing of sampler at 1.3 - 1.5m; HDP (Hydraulic Down Pressure) = 1400 psi; Penetration refusal depth = 1.51m (Penetration speed = 1cm / 5min). Hammer bit percussion drilling at 1.5-2.0m. SILTY SAND: light brown; moist; fine to coarse Sand; residual soil.	FC = F1 FC = F3 %Recovery = 97 PiD = 1.4 - 3.1ppm FC = F3	
483					Hard pushing of sampler at 2.5 - 3.0m; HDP (Hydraulic \Down Pressure) = 1400 psi. Penetration refusal depth = 3.0m (Penetration speed = 2cm / 5min).	n	

ENVIRO-EXPLORATION LOG 11-032E.GPJ USACE SKOREA.GDT 7/22/11

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PROJE	ECT:]	Phase	I Site Se	oil Sam	pling							
LOCAT	LOCATION: Camp Carroll G&EE NO.: 11-032E INSPECTOR: DATE STARTED: 16 Jul 11 FINISHED: 16 Jul 11 DRILLER:											
DATE:	START	ΓED;		<u>16 Ju</u>	111		FINISHED: _	16	<u>Jul 11</u>	DR	LLER:	
DRILLI	NG ME	= IHO	D/EQUII	PMENI	: <u>BEC</u>	:50PM-	-1					
DKILLI	NG AC	SEINC Skirri	Y:	B)	EC		HOLE DIAMET	ER:	5.5 cm	TO.	ΓAL DEPTH: .	7.65 m
LOAFILE	OUNDE	TIA I I	ICKNES	oo			DEPTH DRILL GROUND ELE	ΞD: _	/.65 m	VVA	TER DEPTH:	No Water; AD
									47.26 m	DA	ГUM:	MSL
TYPE	NE HO	/ V L.I \. F·	Piezon	neter	□ Mor	aitorina V	CONTAMINAT Vell 🔲 Test Pi	ION. F	Auger Hole	NOT .	other Direct push	
			1 10201	IIQIQI	L #10#	iitoring v	*Cii		n yağer more	I	mei <u>Direct push</u>	sampling note
ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER	GRAPHIC LOG	SLOW COUNT	SPT N-VALUE	USCS/ STRATA		DESCRIPTIO	OF MA	ATERIALS		FIELD DATA	LAB DATA
	w z	O I	00	ωz	s				· · · · · · · · · · · · · · · · · · ·			
470	S1				FILL	SILTY	' SAND with Gravel: bu	own; mo	pist; about 20%		%Recovery = 80	
*/]_	J.					suban	igular fine to coarse Sa	nd (max	.4.8mm); about 25%	5	PID = 0,1ppm FC = F3	
						Fines;	no plasticity; fill mater	ial (SM).			%Recovery = 84 PID = 0.4ppm	
-1					FILL	SiLTV	'SAND: brown to grayis	h heave		FC = F3		
46—	S2					suban	gular fine to coarse gra gular fine to coarse Sa	vel (ma:		rC = r3		
						Fines;	no plasticity, fill mater	no (max al (SM).	'			
45—2]		FILL	CLAYE	EY SAND: reddish brov gular fine to coarse gra	n; moist	t; about 5%		%Recovery = 63	
40						subang	gular fine to coarse Sa	vei (max nd; abou	t 35% Fines; fill		PID = 0 - 0.4ppm	
_						materia	al (SC).					
-3			1									
44			1 1									
-	S3 }									ı		
-		XXX	İ									
4				ľ	SM	SILTY	SAND: brown; moist; a	bout 709	% subangular fine to			
43—						coarse residua	Sand (max.4.8mm); a al soil.	oout 30%	6 Fines; no plasticity	7.		
										ĺ		
-5											***************************************	
42—					İ						%Recovery = 90 PID = 0 - 0.3ppm	
				1								
			İ									
-6				-								
41	S4									1		
-7										1		
40-				Ī								
-							ock fragments at 7.5-7.					
	h-i-	1. h	··				7.65 m; HDP (Hydraulion tion refusal depth = 7.			<u>i.</u>		
						3cm / 5r		,,	- F			
												į
												1

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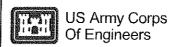
DRILLIN OVERB COORD GROUN	NG METHO NG AGENC' URDEN TH DINATES: N ID COVER: F HOLE:	Y: ICKNES : 3,983,4 Grass	B) SS: 173.0 E	EC :: <u>447,</u> 0	HOLE DIAMETER: 5.5 cm TO DEPTH DRILLED: 3.2 m WA 08.8 GROUND ELEV.: 50.12 m DA CONTAMINATION:	TAL DEPTH: ATER DEPTH: TUM: other <u>Direct push</u>	No Water; AD MSL
ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER GRAPHIC LOG	BLOW COUNT	SPT N-VALUE	USCS / STRATA	DESCRIPTION OF MATERIALS	FIELD DATA	LAB DATA
9-1	S1 S2			SM	SILTY SAND: brown; moist; about 1% subangular fine gravel (max.1cm); about 59% fine to coarse Sand; about 40% Fines; no plasticity; fill material (SM). SILTY SAND: light brown; moist; about 70% subangular fine to coarse Sand; about 30% Fines; no plasticity; residual soil; granite texture. Hard pushing of sampler at 3 - 3.2m; HDP (Hydraulic Down Pressure) = 1400 psi.	%Recovery = 100 PID = 0.4ppm FC = F3 FC = F3 %Recovery = 100 PID = 0.8 - 1.6ppm %Recovery = 98 PID = 1.1 - 1.4ppm	
					Penetration refusal depth = 3.2m (Penetration speed = 4cm / 5min).		





ETHOD/E GENCY: EN THICH TES: N: 3. OVER: G	KNESS: _ 983,469.1	T: BEC: BEC E: 447,	50PM-1 HOLE DIAMETER DEPTH DRILLED: 589.2 GROUND ELEV.: CONTAMINATION	A: 5.5 cm 6.75 m 47.46 m N: Auger Hole Auger Hole That 5% subangular fine to coarse sines; no plasticity; fill about 75% subangular	FIELD DATA **Recovery = 80 PID = 0.7ppm FC = F3 **Recovery = 97 PID = 0.2 - 1.0ppm FC = F3	No Water; Al MSL
GENCY: IEN THICH IES: N: 3. OVER: G DLE:	KNESS:983,469.1 Grass Piezometer	E: 447,5 Mon /SOSN FILL	HOLE DIAMETER DEPTH DRILLED: 589.2 GROUND ELEV.: CONTAMINATION itoring Well Test Pit DESCRIPTION OF SILTY SAND: brown; moist; abou gravel (max.2cm); about 70% sut Sand (max.4.8mm); about 25% F material (SM). SILTY SAND: light brown; moist; fine to coarse Sand (max.4.8mm)	: 6.75 m 47.46 m N: Auger Hole F MATERIALS at 5% subangular fine to coarse lines; no plasticity; fill about 75% subangular	WATER DEPTH:	No Water; Al MSL ampling hole
GRAPHIC LOG CONTAMINATED	BLOW COUNT SPT N-VALUE	FILL	SILTY SAND: brown; moist; abou gravel (max.2cm); about 70% sut Sand (max.4.8mm); about 25% F material (SM). SILTY SAND: light brown; moist; fine to coarse Sand (max.4.8mm)	ut 5% subangular fine bangular fine to coarse lines; no plasticity; fill about 75% subangular	%Recovery = 80 PID = 0.7ppm FC = F3 %Recovery = 97 PID = 0.2 - 1.0ppm FC = F3	LAB DATA
			gravel (max.2cm); about 70% sut Sand (max.4.8mm); about 25% F material (SM). SILTY SAND: light brown; moist; fine to coarse Sand (max.4.8mm)	bangular fine to coarse ines; no plasticity; fill about 75% subangular	PID = 0.7ppm FC = F3 **Recovery = 97 PID = 0.2 - 1.0ppm FC = F3	
	***************************************	SM	fine to coarse Sand (max.4.8mm)	about 75% subangular); about 25% Fines; no		7

					%Recovery = 95 PIO = 0ppm	
			Hard pushing of sampler at 6.0-6. Down Pressure) = 1000 psi.	.75 m; HDP (Hydraulic	%Recovery = 91 PID = 0ppm	
			Penetration refusal depth = 6.75n 3cm / 5min).	n (Penetration speed =		
					Penetration refusal depth = 6.75m (Penetration speed = 3cm / 5min).	



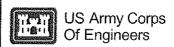
HOLE NO. E11-138





PROJE	:CT: <u>P</u>	hase I	Site So	oil Samı	oling					
LOCAT				<u> </u>		G&EE NO.: _	11-032E	_ INS	PECTOR:	7
DATES	START	ED: _		18 Ju	11		18 Jul 11	_ DR	ILLER;	
DRILLI	NG ME	THOD	/EQUIF	PMENT:	BEC:	50PM-2				
DRILLI	NG AG	ENCY	:	Bl	EC	HOLE DIAME	TER: <u>5.5 cm</u>	_ TO	TAL DEPTH: _	2.22 m
OVERE	BURDE	N THI	CKNES	SS:		DEPTH DRILI	.ED: <u>2.22 m</u>	_ WA	TER DEPTH:	No Water; AD
COORD	DINATE	S: N:	3,983,4	<u>161.8</u> E	: <u>447,6</u>	612.0 GROUND ELI	EV.: <u>49.75 m</u>	_ DA	ГИМ:	MSL
GROUN	4D CO,	VER:	Brick:	tile		CONTAMINA	ΓΙΟΝ:			
TYPE C	F HOL	.E: [] Piezon	neter	☐ Moni	itoring Well	it	X	other <u>Direct push</u>	sampling hole
ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER	GRAPHIC LOG CONTAMINATED	BLOW COUNT	SPT N-VALUE	USCS/ STRATA	DESCRIPTIO	ON OF MATERIALS		FIELD DATA	LAB DATA
ſ		· 0.			PCC PCC	Brick tile thickness = 7 cm. Cement concrete pavemen				
					FILL	Poorly-graded GRAVEL w	th Sift and Sand: gray, mo	ist;	FC = F1	
-		XXX			FILL	about 65% angular to suba about 25% fine to coarse S	ngular fine gravel (max.2cn and (max.4.8mm): about 1	n);	%Recovery = 100 PID = 4.6ppm	
	S1	***			SM	├\Fines; no plasticity; fill mate	erial (GP-GM).	Ir	FC = F3 FC = F3	
49						SILTY SAND: brown; moist coarse Sand; about 30% Fi	; about 70% subangular iin nes; no plasticity; fill mater	ial	10-13	
	├ ──				İ	(SM). SILTY SAND: brown to light	hrown; moist: about 70%	fine	%Recovery = 96	
1						to coarse Sand; about 30% granite texture.	Fines; no plasticity; residu	al soil;	PID ≈ 3.8 - 8.6ppm	
						granite texture.				
		[]] [
	S2				ĺ					
48-	ļ.									
			ļ		İ					
-2	<u> </u>									
						Hard pushing of sampler at Down Pressure) = 1300 psi.				
						Penetration refusal depth =	2.22m (Penetration speed	= -		

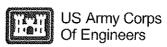
1,5cm / 1min).







			Site Se				G&EE NO.:	1	1-032E	INS	PECTOR: _	
	START			18 Ju PMENT		50PM	FINISHED:	18	3 Jul 11	DR	LLER:	<u> </u>
DRILL OVER COOR GROU	ING AC BURDE DINAT IND CC	SENCY EN THI ES: N: VER:	': CKNES <u>3,983,</u> <u>Grass</u>	B) 6S: 454.7 E	EC :: 447,0	608.4	HOLE DIAME DEPTH DRIL GROUND EL CONTAMINA	LED: EV.: TION:	3.66 m 50.06 m	WA DA	rum:	No Water; AD MSL
IAAF	OF HO	LE: [Piezor	neter	☐ Mon	itoring \	Well Test i	2it L	Auger Hole	(X) (other <u>Direct push</u>	sampling hole
ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER	GRAPHIC LOG CONTAMINATED	BLOW COUNT	SPT N-VALUE	USCS / STRATA		DESCRIPTI	ON OF MA	ATERIALS		FIELD DATA	LAB DATA
500	S1				FILL	about about	Y SAND with Gravel: t 35% subangular fine t 50% subangular fine s; no plasticity; fill mat	to coarse to coarse	gravel (max.3cm); Sand; about 15%	st;	**Recovery = 90 PID = 13.1ppm FC = F3	
					SM	SHT	Y SAND: brown; mois	f: about 75	% subangular fine	to.	%Recovery = 100 PID = 4.8 - 18.0ppm FC = F3	
49	S2				SIVI	coars	<u>y SANU</u> : brown; mois ie Sand (max.4.8mm) ual soil; granite textur	; about 25°	% subangular tine % Fines; no plastic	to ity;	FC=F3	
482			2000		2.7mm					***************************************	%Recovery = 100 PID = 4.3 - 4.9ppm	
473	S3			7777881		Hard p Down	oushing of sampler at Pressure) = 1300 psi	3,5-3.66 r	n; HDP (Hydraulic			
l i	<u> </u>	1:1:1				Penetr 1cm /	ration refusal depth = 1min).	3.66m (Po	enetration speed =			1



EXPLORATION LOG HOLE NO. E11-140

Far East District



PF	ROJE	CT:	Phase I	Site Se	oil Sam	nling				
LC	CAT	ION:	Camp	Carrol	1		G&EE NO.:	11-032E	INSPECTOR:	THE REAL PROPERTY.
D/	TE S	STAR	TED:		14 Ju	111	FINISHED:		DRILLER:	
DF	RILLI	NG MI	ETHOD	/EQUI	PMENT	: <u>BEC</u>	50PM-2			
						EC		ER: <u>5.5 cm</u>	_ TOTAL DEPTH:	3.0 m
							DEPTH DRILLI			
							642.2 GROUND ELE		_ DATUM:	MSL
							CONTAMINAT	***************************************		
TY	PE (OF HO	LE: [☐ Piezor	neter	☐ Mon	itoring Well	☐ Auger Hole	X other <u>Direct push</u>	sampling hole
-			1		1	1	<u> </u>			
]		SAMPLE TYPE NUMBER	GRAPHIC LOG CONTAMINATED	Ϋ́						
Į į	(meters)	III III		BLOW COUNT	щ	- 4	DESCRIPTION	N OF MATERIALS	FIELD DATA	LAB DATA
×	E SE	MBR	I de la la	Š	SPT N-VALUE	USCS / STRATA				
<u> </u>	ijĔ.	SAI	GRAPHIC LOG CONTAMIN	BLO	P S S	STE				
	L-0		XXXX			FILL	SILTY SAND: brown; moist;	about 30/ subangular to	%Recovery = 94	
						FILL	angular line to coarse gravel	; about 77% fine to coarse		
		S1					Sand; about 20% Fines; fill n	naterial (SM).		
50		ļ								
_	-	 				SM	SILTY SAND: brown; moist; a	about 70% subangular fine	e to %Recovery = 100	
							coarse Sand; about 30% Fine	es; no plasticity; residual s		
							granite texture, whock magnin	erits.		
-										
	1						Light brown; dense.			
49										
	-									
		S2								
4	2									
	~						Very dense below 2.5m,			
			33411							
48	_			ļ						
							Hard pushing of sampler at 2. Pressure) = 1400 psi.	.5 - 3m; HDP (Hydraulic D	own	
		·	3331							
7.	_3		114				Danishadan us.Co1. (Co.12) C	- (D(
							Penetration refusal depth = 3 5min).	m (Penetration speed = 3	cm /	

EXPLORATION LOG



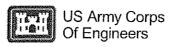


OVERB COORE GROUN	SURDEN TH DINATES: N ND COVER:	ICKNES : <u>3,983,</u> 4 <u>Aspha</u>	SS: <u> 48.1</u> E t pave	: <u>447,5</u> nent	78.6 GROUND ELEV.: 47.54 m DA CONTAMINATION:	TER DEPTH: 4.46 m; A
ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER GRAPHIC LOG	BLOW COUNT	SPT N-VALUE	USCS/ STRATA	DESCRIPTION OF MATERIALS	FIELD DATA LAB DAT
17—1 16—1 16—2	S1 S2			FILL FILL	Asphalt pavement thickness = 5 cm. Poorly-graded GRAVEL with Silt and Sand: grayish brown; moist; about 70% subangular coarse gravel (max.5cm); about 20% subangular fine to coarse Sand (max.4.8mm); about 10% Fines; no plasticity, fill material (GP-GM). SILTY SAND: brown; moist; about 5% subangular fine to coarse gravel (max.3cm); about 65% subangular fine to coarse Sand (max.4.8mm); about 30% Fines; no plasticity, fill material (SM). Subangular fine gravel (max.2cm).	FC = F1 %Recovery = 100 PID = 2.2ppm FC = F3 %Recovery = 100 PID = 0.5 - 1.1ppm
5—- -—3 ——	53			FILL	About 70% subangular fine to coarse Sand (max.4.8mm); about 30% Fines; no gravel below 2.3m. CLAYEY SAND: reddish brown; moist; about 65% subangular fine to coarse Sand (max.4.8mm); about 35% Fines; medium plasticity; fill material (SC). Easy pushing of sampler at 3.3-4.3m; HDP=100 psi. Silty sand layer encountered at 4.0-4.3m; perched water encountered at 4.3m. Brown; wet; about 5% subangular fine to coarse gravel (max.3cm); about 65% subangular fine to coarse Sand; about 30% Fines.	%Recovery = 72 PID = 0.3 - 1.2ppm
	S4		THERES. THERESES THE THERESES	SM	SiLTY SAND: light brown; moist; about 70% subangular fine to coarse Sand (max.4.8mm); about 30% Fines; no plasticity, residual soil. Hard pushing of sampler at 7.0-7.2m; HDP (Hydraulic Down Pressure) = 1000 psi.	%Recovery = 71 PID = 0.9 - 2.1ppm





LOCAT DATE S	LOCATION: Camp Carroll G&EE NO.: 11-032E INSPECTOR: DATE STARTED: 16 Jul 11 FINISHED: 16 Jul 11 DRILLER: DRILLING METHOD/EQUIPMENT: BEC50PM-2										
DRILLIN OVERB	NG AG URDE DINATI ND CO	ENCY N THI ES: N: VER:	: CKNES 3,983, 4 <u>Grass</u>	B1 6S: 142.5 E	EC : 447,6						
ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER	GRAPHIC LOG CONTAMINATED	BLOW COUNT	SPT N-VALUE	USCS / STRATA	DESCRIPTION OF MATERIALS FIELD DATA LAB DATA					
49	S1 S2				FILL	SILTY SAND: brown; moist; about 1% subangular fine gravel; about 69% subangular fine to coarse Sand (max.4.8mm); about 30% Fines; no plasticity; fill material (SM). SILTY SAND: brown; moist to wet; about 75% subangular **Recovery = 90 PID = 1.2ppm FC = F3 **Recovery = 75 PID = 1.5 - 1.9ppm FC = F3					
472	*		***************************************			fine to coarse Sand (max.4.8mm); about 25% Fines; no plasticity; residual soil; granite texture. MRecovery = 78					
45——4	S3		***************************************	TO THE PARTY OF TH	1/4/1	Hard pushing of sampler at 4.5-4.73 m; HDP (Hydraulic					
·						Down Pressure) = 1300 psi. Penetration refusal depth = 4,73m (Penetration speed = 4cm / 5min).					







PROJE LOCAT DATE S DRILLII DRILLII OVERE COORI GROUN TYPE C	TON: START NG ME NG AC BURDE DINAT ND CC	Camp TED: ETHOD SENCY EN THI ES: N: OVER:	Carrol D/EQUII CKNES 3,983,4 Grass	16 Ju 16 Ju PMENT B1 SS:	1 11 : <u>BEC</u> EC	50PM-	HOLE DIAM DEPTH DRI GROUND E CONTAMINA	ETER: LLED: LEV.: _ ATION:	5.5 cm 3.55 m	TOT WAT	PECTOR: _ LLER: FAL DEPTH: _ TER DEPTH: FUM:	No Water; AD MSL
ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER	GRAPHIC LOG CONTAMINATED	BLOW COUNT	SPT N-VALUE	USCS/ STRATA		DESCRIPT	TION OF M	ATERIALS		FIELD DATA	LAB DATA
49	\$1 \$2				SM	1% sul subang plastic SILTY subang Fines;	bangular fine grave guar fine to coarse ity, fill material (SM SAND: brown to lig gular fine to coarse no plasticity; residi	el (max.1cm Sand; abo J; grass ro- jht brown; r Sand (ma: ual soil; gra	ut 30% Fines; no ots at 0-0.15m, noist; about 70% x.4.8mm); about 30%	ď;	%Recovery = 90 PID = 2.6ppm FC = F3 FC = F3 %Recovery = 90 PID = 3.5 - 4.8ppm %Recovery = 100 PID = 1.7 - 1.9ppm	
						Down P	ressure) = 1300 ps tion refusal depth	ií.	m; HDP (Hydraulic			

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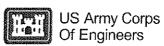


DESCRIPTION OF MATERIALS FIELD DATA LAB DATE The state of the state	COOR GROU	DINATI VD CO	ES: N: 3	3,983,4 Grass	135.9 E		32.4 GROUND ELEV.:	50.10 m	DAT	TER DEPTH: FUM: other _Direct push	MSL
SILTY SAND: with Gravel: graysts brown; grades to brown; moist; about 15% subangular fine gravel (max.4.8mm); about 20% Fines; fill material (SM); grass roots at 0-0.1m. SM SILTY SAND: light brown; moist; about 70% subangular fine to coarse Sand; about 30% Fines; no plasticity; residual soil; granite texture. With rock fragments. With rock fragments. Hard pushing of sampler at 1.4 - 1.52m; HDP (Hydraulic Down Pressure) = 1400 psi. Penetration refusal depth = 1.52m (Penetration speed = 1	ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER	GRAPHIC LOG CONTAMINATED	BLOW COUNT	SPT N-VALUE	USCS / STRATA	DESCRIPTION OI	F MATERIALS		FÆLD DATA	LAB DATA
SM SiLTY SAND: light brown; moist; about 70% subangular fine to coarse Sand; about 30% Fines; no plasticity, residual soil; granite texture. With rock fragments. Hard pushing of sampler at 1.4 - 1.52m; HDP (Hydraulic Down Pressure) = 1400 psi. Penetration refusal depth = 1.52m (Penetration speed ≈ 1		\$1				FILL	moist; about 15% subangular fin 65% subangular fine to coarse S	e gravel (max.1.5cm); and (max,4.8mm); abo	about !	%Recovery = 96 PID = 5.8ppm	
With rock fragments. Hard pushing of sampler at 1.4 - 1.52m; HDP (Hydraulic Down Pressure) = 1400 psi. Penetration refusal depth = 1.52m (Penetration speed = 1						SM	fine to coarse Sand; about 30% F	about 70% subangula Fines; no plasticity, res	r ídual		
Down Pressure) = 1400 psi. Penetration refusal depth = 1.52m (Penetration speed = 1	'	S2		***************************************	***************************************	***************************************	With rock fragments.				
							Down Pressure) = 1400 psi.	, ,	- 1		

EXPLORATION LOG

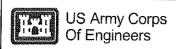


PROJE	ECT: Phase	e I Site So	oil Sam	pling	CSEE NO :	11 023E	INCE	DECTOR:	
DATE	ΓΙΟΝ: <u>Cam</u> STARTED:	p Carro	17 Ju	I 11	G&EE NO.: FINISHED:		_	PECTOR: LER:	
DRILLI	NG METHO	D/EQUI	PMENT	BEC:	50PM-1				
DRILLI	NG AGENC	Y:	В	EC	HOLE DIAMETE	R: <u>5.5 cm</u>		AL DEPTH: _	
OVER	BURDEN TH	HICKNES	SS:		DEPTH DRILLE	D: <u>5.8 m</u>	_		No Water; AD
COOR	DINATES: N	1: <u>3,983,4</u>	<u>117.9</u> E	.: <u>447,:</u>	586.7 GROUND ELEV		_ DAT	UM:	MSL
	ND COVER OF HOLE:				CONTAMINATION itoring Well	ווע: ☐ Auger Hole	NVI of	her <u>Direct push</u>	
	T	1 102011	T.		I I I I I I I I I I I I I I I I I I I	□ Augel Flole	LASI OI	nei <u>Direct pusii</u>	sampling note
ELEVATION / DEPTH (meters)	SAMPLE TYPE, NUMBER GRAPHIC LOG	CONTAMINATED BLOW COUNT	SPT N-VALUE	USCS/ STRATA	DESCRIPTION	OF MATERIALS	, TOWN AS	FIELD DATA	LAB DATA
49	S1			FILL	SILTY SAND with Gravel: gra 25% subangular fine to coarse subangular fine to coarse San Fines; no plasticity, fill materia	gravel (max.3cm); about 2 (max.4,8mm); about 2	ut 50% /	%Recovery = 100 PID = 0.5ppm FC = F1 FC = F3	
48-	S2				SILTY SAND: brown; moist; at coarse gravel (max.3cm); abor coarse Sand (max.4.8mm); ab fill material (SM). About 10% subangular fine gra subangular fine to coarse Sand Fines; encountered clayey san	out 5% subangular fine tut 70% subangular fine to tout 25% Fines; low plas avel (max.2cm); about 64 (max 4.8mm); about 64 (max 4.8mm); about 64 (max 4.8mm); about 25 (max 4.8mm	to o ticity;	%Recovery = 90 PID = 0.7 - 4.8ppm	
47——3			**************************************					%Recovery = 89 PID = 0.9 - 4.2ppm	
455	53			SM	SILTY SAND: brown; moist; ab coarse Sand (max.4.8mm); ab residual soil.				
44—					Hard pushing of sampler at 5.4	l-5.8 m; HDP (Hydraulic			
ا لـ		<u> </u>	L		Down Pressure) = 1000 psi. Penetration refusal depth = 5.8		5cm		
					/ 5min).				





DATE S DRILLIN DRILLIN OVERB COORE	ION: 9 START NG ME NG AG SURDE DINATE	Camp ED: _ THOD ENCY N THIC ES: N: VER:	Carrol /EQUIF : : : : : : : : : : : : : : : : : : :	14 Ju 14 Ju PMENT: BI SS: 135.9 E	111 BEC: EC	G&EE NO.: 11-032E FINISHED: 14 Jul 11 50PM-1 HOLE DIAMETER: 5.5 cm DEPTH DRILLED: 4.85 m CONTAMINATION:	INSPECTOR: DRILLER: TOTAL DEPTH: WATER DEPTH: DATUM: MI otherDirect push	No Water; AD MSL
ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER	GRAPHIC LOG CONTAMINATED	BLOW COUNT	SPT N-VALUE	USCS/ STRATA	DESCRIPTION OF MATERIALS	FIELD DATA	LAB DATA
45-2	S1 S2 S3				FILL	CLAYEY SAND: brown; moist; about 10% subangular fine to coarse gravel (max.3cm); about 65% subangular fine to coarse Sand (max.4.8mm); about 25% Fines; medium plasticity; fill material (SC). SILTY SAND: brown; moist; about 5% subangular fine gravel (max.2cm); about 65% subangular fine to coarse Sand (max.4.8mm); about 30% Fines; no plasticity; fill material (SM). SILTY SAND: yellowish brown; moist; about 75% subangular fine to coarse Sand (max.4.8mm); about 25% Fines; no plasticity; residual soil. Light brown.		
+						Hard pushing of sampler at 4.5-4.85 m; HDP (Hydraulic Down Pressure) = 1000 psi. Penetration refusal depth = 4.85m (Penetration speed ≈ 3cm / 5min).		



HOLE NO. E11-147



PROJECT:] LOCATION: DATE START DRILLING ME DRILLING AG OVERBURDE COORDINAT GROUND CO TYPE OF HO	Camp (Carrol EQUIF CKNES 3,983,4 Grass	16 Ju 16 Ju PMENT: BI SS:	H11 BEC: EC	50PM- 510.0	HOLE DIAMET DEPTH DRILL GROUND ELE CONTAMINAT	16 Jul ER: 5 ED: 1. V.: 49.	11 D 5 cm T 97 m W 45 m D	NSPECTOR: RILLER: OTAL DEPTH: /ATER DEPTH: ATUM: Cother <u>Direct push</u>	
ELEVATION / DEPTH (meters) SAMPLE TYPE / NUMBER	GRAPHIC LOG CONTAMINATED	BLOW COUNT	SPT N-VALUE	USCS/ STRATA		DESCRIPTIOI	N OF MATERIA	ALS	FIELD DATA	LAB DATA
s1				FILL.	69% s	SAND: brown; moist; ubangular fine to coars al (SM); grass roots at	se Sand; about	jravel; about 30% Fines; fill	%Recovery = 100 PID = 2.1ppm	
		***************************************	7000	SM	coarse granite	SAND: brown; moist; as Sand; about 30% Fine texture.	es; no plasticity	, residual soil;	%Recovery = 100 PID = 3.5 - 4.1ppm	
1 [Down F	Pressure) = 1300 psi.				

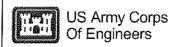
Penetration refusal depth = 1.97m (Penetration speed = 4 cm / 5min).

	US Army Corps Of Engineers
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PRO.IF	ECT: Phase I	Site Soi	l Samr	nling					
LOCAT	FION: Camp	Carroll		•	G&EE NO.:	11-032E	INS	PECTOR:	
					FINISHED:	17 Jul 11	DR	ILLER:	and the second second
	NG METHOD								
DRILLI	NG AGENCY	:	BF	EC	HOLE DIAMETI	ER: <u>5.5 cm</u>		TAL DEPTH: _	
OVERE	BURDEN THI	CKNES	S:		DEPTH DRILLE	D: <u>5.8 m</u>	_	TER DEPTH:	
					674.6 GROUND ELEN		_ DA	ГUМ:	MSL
	OF HOLE:				CONTAMINATION toring Well Test Pit		(NOR)	D: ()	
1115	THOLE. (=161	[toring Well	☐ Auger Hole	LAS: C	other <u>Direct push</u>	sampling note
ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER GRAPHIC LOG CONTAMINATED	SLOW COUNT							
주 대 (8)	SAMPLE T NUMBER GRAPHIC LOG CONTAMIN	S >	SPT N-VALUE	ZY.	DESCRIPTION	OF MATERIALS		FIELD DATA	LAB DATA
LEV DEPT	IUM SRAP OO	١٥	T-Y-	USCS / STRATA					
О шс; ≎	02 010	m	w z						
				\ AC	Asphalt pavement thickness = Poorly-graded GRAVEL with		TOWD,	FC≈F1	
47—	s1			FILL	moist; about 70% subangular	coarse gravel (max.5cm), [%Recovery = 100 PID = 0.2ppm	
			l		about 20% subangular fine to about 10% Fines; no plasticity	r, fill material (GP-GM).	" [FC = F3	
<u></u> _1			-	FILL	SILTY SAND: brown; moist; all coarse gravel (max.3cm); abo	bout 10% subangular fine	e to	%Recovery = 85 PID = 0 - 1,5ppm	
				FILL	i coarse Sand (max.4.8mm); at	oout 30% Fines; no plasti	icity,	FC = F3	
6	S2	İ		rice	fill material (SM), About 70% subangular fine to	coarse Sand (max.4.8mi	m);	FC = F3	
					about 30% Fines. CLAYEY SAND: reddish brown	or majoti about 709/			
2					subangular fine to coarse San	d (max.4.8mm); about 30	0%		
	├ ──₩				Fines; medium plasticity, fill m SILTY SAND: brown; moist; al	naterial (SC). Dout 5% subangular fine	to.	%Recovery = 66	
15					coarse gravel (max.3cm); abo	ut 65% subangular fine to	o i	PID = 0 - 1.4ppm	
	I ⋙ I	İ			coarse Sand (max.4.8mm); ab fill material (SM).	out 30% Fines; no plasti	city;		
1 3		-	1		Low plasticity.				
. L	* 				Brown; wet; about 5% subangi	ular fine to coarse gravel			
4					(max.3cm); about 75% subang (max.4.8mm); about 20% Fine	jular fine to coarse Sand s: no plasticity: easy ous	hina		
4					of sampler at 3.3-4.3m; HDP= encountered at 3.3m.	100 psi; perched water	,3		
	53	-							
3		1	Γ	SM	SILTY SAND: light brown; moistine to coarse Sand (max.4.8m	st; about 75% subangula	r		
					plasticity; residual soil.	iiri), about 25 /6 Fitles, fic	'		
5									
				ĺ	1100				
2					With rock fragments. Hard pushing of sampler at 5.	F. F. Smr Lind /Lindenselie	Down		
l [Pressure) = 1000 psi,				1
					Penetration refusal depth = 5.0 / 5min).	8m (Penetration speed =	5cm		
					, writerys				



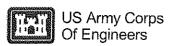
HOLE NO. **E11-149**



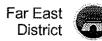


PROJE LOCAT DATE S	ION:	Camp	Carrol	<u> </u>		G&EE NO.:		INSPECTOR:	
DATES						FINISHED: 60PM-1	18 Jul 11	DRILLER:	
DRILLII OVERB	NG AG BURDE DINATI ND CO	SENCY: EN THIC ES: N: VER:	 CKNES 3,983,4 Grass	BI S: 24.7 E	EC : 447,5		3.6 m 49.81 m	TOTAL DEPTH: WATER DEPTH: DATUM:	No Water; AD MSL
	1	t] 1 162.011	icics	L IVIOIII	toring weir the lest Fit	□ Auger Hote	M Office Direct push	sampling note
ELEVATION / DEPTH (meters)	SAMPLE TYPE / NUMBER	GRAPHIC LOG CONTAMINATED	BLOW COUNT	SPT N-VALUE	USCS / STRATA	DESCRIPTION OF	F MATERIALS	FIELD DATA	LAB DATA
-0	S1				FILL	SILTY SAND with Grave: brown subangular coarse gravel (max,3 fine to coarse Sand (max,4.8mm plasticity; fill material (SM).	cm); about 60% subang	%Recovery = 100 PID = 5.3ppm FC = F3	
491	\$2		10000000	77000	FILL	SILTY SAND: brown; moist; abou gravel (max.3cm); about 65% sul Sand (max.4.8mm); about 30% F material (SM).	pangular fine to coarse	%Recovery ≈ 93 PID = 1.1 - 2.0ppm FC = F3	
48— —2 ——2 47———3	\$3			1777	SM	SILTY SAND: light brown; moist; Sand (max.4.8mm); no plasticity;		%Recovery = 97 PID = 3.1 - 3.6ppm	
-						Hard pushing of sampler at 3.4-3 Pressure) = 1000 psi. Penetration refusal depth = 3.6m / 1min).			

ENVIRO-EXPLORATION LOG 11-032E.GPJ USACE SKOREA.GDT 7/22/11



HOLE NO. E11-150



DRILLII OVERB COORI GROUN	NG AG URDE NATI ND CO	ENCY: N THICES: N: ; VER:	CKNES 3,983,4 Grass	B) SS: 113.4 E	EC : <u>447,</u> 0	50PM-1 HOLE DIAMETER: 5.5 cm DEPTH DRILLED: 7.0 m 628.5 GROUND ELEV.: 50.06 m CONTAMINATION:	_ DA	TUM:	
TYPE C	T			neter	☐ Mon	itoring Well	X	other <u>Direct push</u>	sampling hole
ELEVATION / DEPTH (meters)	SAMPLE TYPE NUMBER	GRAPHIC LOG CONTAMINATED	BLOW COUNT	SPT N-VALUE	USCS/ STRATA	DESCRIPTION OF MATERIALS		FIELD DATA	LAB DATA
50-0	\$1 \$2				FILL	SILTY SAND: brown; moist; about 5% subangular fine gravel (max.1cm); about 70% subangular fine to coars Sand (max.4.8mm); about 25% Fines; no plasticity; fill material (SM). About 10% subangular fine to coarse gravel (max.3cm about 65% subangular fine to coarse Sand; about 25% Fines. About 5% subangular fine gravel (max.1cm); about 65% subangular fine gravel (max.1cm); about 65% subangular fine to coarse Sand; about 30% Fines.	e);	%Recovery = 100 PID = 0.4ppm FC = F3 %Recovery = 97 PID = 0.2 - 2.1ppm	
47——3	s3		,		FILL	CLAYEY SAND: reddish brown to gray; moist; about 59 subangular fine to coarse gravel (max.3cm); about 60% subangular fine to coarse Sand (max.4.8mm); about 35 Fines; medium plasticity; fill material (SC). Gray; wet; about 60% subangular fine to coarse Sand; 40% Fines; no gravel below 3.0m. Brown; about 65% subangular fine to coarse Sand (max.4.8mm); about 35% Fines; medium plasticity.	6 5%	PID = 1.2 - 4.2ppm	
45 -5 -	\$4			7000	SM	SILTY SAND: light brown; moist; about 75% subangular fine to coarse Sand (max.4.8mm); about 25% Fines; no plasticity; residual soil. Hard pushing of sampler at 6.7-7.0m; HDP (Hydraulic December 2015)		%Recovery = 86 PID = 3.9 - 4.3ppm	
<u>∟</u> 7 L	<u> </u>	<u> </u>		4		Pressure) = 1000 psi. Penetration refusal depth = 7.0m (Penetration speed = / 1min).			

ENVIRO-EXPLORATION LOG 11-032E.GPJ USACE SKOREA,GDT 7/22/11

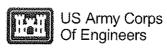


HOLE NO. E11-151



DRILLING METHOD/EQUIPMEI DRILLING AGENCY:	BEC E: 447,580.1	HOLE DIAMETER: 5.5 cm TOTAL DEPTH: 7.85 m DEPTH DRILLED: 7.85 m WATER DEPTH: No Water; A GROUND ELEV.: 47.93 m DATUM: MSL CONTAMINATION:
ELEVATION / DEPTH (meters) SAMPLE TYPE / NUMBER GRAPHIC LOG CONTAMINATED BLOW COUNT	N-VALUE USCS/ STRATA	DESCRIPTION OF MATERIALS FIELD DATA LAB DATA
5—————————————————————————————————————	FILL SILL subtrine plast	TY SAND: brown; moist; about 10% subangular fine to rise Sand (max.4.8mm); about 60% subangular fine to rise Sand (max.4.8mm); about 30% Fines; no plasticity, angular fine to coarse Sand (max.4.8mm); about 30% reases Sand (max.4.8mm); about 30% sibangular fine to coarse Sand (max.4.8mm); about 30% sibangular fine to coarse Sand (max.4.8mm); about 30% sibangular fine to coarse Sand (max.4.8mm); about 30% subangular fine to coarse (max.4.8mm); about 30% subangular fine to coarse (max.4.8mm); about 30% Fines; no plasticity, fill erial (SM). It 70% subangular fine to coarse Sand (max.4.8mm); all 30% Fines; no gravel below 2.0m. TY SAND with Gravel; brown; moist; about 15% in gravel (max.5cm); about 60% subangular to coarse Sand (max.4.8mm); about 25% Fines; no cicity; fill material (SM). It 70% fine to coarse Sand; about 30% Fines; no gravel w 5.5m. Ty SAND: light brown; moist; about 25% Fines; no cicity; residual soil. Ty SAND: light brown; moist; about 25% Fines; no cicity; residual soil.

ENVIRO-EXPLORATION LOG 11-032E.GPJ USACE SKOREA.GDT 7/22/11







PROJECT LOCATION DATE STA DRILLING DRILLING OVERBUR COORDIN GROUND TYPE OF I	N: <u>Camp</u> ARTED: _ METHOD AGENCY DEN THI ATES: N: COVER:	Carrol D/EQUIF CKNES 3,983,4 Grass	18 Ju 18 Ju PMENT: B) SS:	BEC: EC	G&EE NO.: 11-032E INSPECTOR: FINISHED: 18 Jul 11 DRILLER: 50PM-1 HOLE DIAMETER: 5.5 cm TOTAL DEPTH: 5.0 m DEPTH DRILLED: 5.0 m WATER DEPTH: No Water; AD 10.1 GROUND ELEV.: 49.65 m DATUM: MSL CONTAMINATION: toring Well
ELEVATION / DEPTH (meters) SAMPLE TYPE /	NUMBER GRAPHIC LOG CONTAMINATED	BLOW COUNT	SPT N-VALUE	USCS / STRATA	DESCRIPTION OF MATERIALS FIELD DATA LAB DATA
49—1 s 48—2 47—3 46—4 45—5				SM	SILTY SAND: brown; moist; about 5% subangular fine to coarse gravel (max.3cm); about 70% subangular fine to coarse Sand (max.4.8mm); about 25% Fines; no plasticity; fill material (SM). No gravel below 1.0m. SILTY SAND: brown; moist; about 70% subangular fine to coarse Sand (max.4.8mm); about 30% Fines; residual soil. **Recovery = 100 PID = 1.9ppm FC = F3 **Recovery = 95 PID = 3.8 - 4.2ppm **Recovery = 94 PiD = 2.4 - 4.7ppm **Recovery = 94 PiD = 2.4 - 4.7ppm Hard pushing of sampler at 4.7-5.0m; HDP (Hydraulic Down Pressure) = 1000 psi. **Penetration refusal depth = 5.0m (Penetration speed = 1cm / 1min).