المينة المامة للطرق و الكبارى (GARB)

محضر استلام موقع

مشروع: أعمال الجسر الترابي لمسار القطار الكهرباني السريع الخط الأول (العين السخنة - مطروح) قطاع (العلمين/فوكة) لتنفيذ المسافة من الكم 476+600 الى الكم 600+477 بطول 1 كم إتجاه سيدي كرير

> تنفيذ: شركة المؤسسة المصرية المتحدة إشراف : المنطقة الخامسة – منطقة غرب الدلتا طبقا للعقد رقم (2023/2023) بتاريخ 2023/8/22 إنه في يوم الثلاثاء الموافق 2023/08/27 اجتمع كل من:-

مدير عام مشروعات - الهينة العامة للطرق والكباري	 ۱ السيد المهندس /محيد حسني فياض
مدير مشروع - الهينة العامة للطرق والكباري	2- السيد المهندس /إبراهيم عبد الله الحناوي
مدير مشروع-شركة المؤسسة المصرية المتحدة	3- السيد المهندس/ محمود شاويش

وذلك للمرور على مسار العملية المذكورة عاليه لاستلام الموقع :-وقد تبين أن الموقع خالياً من العوانق الظاهرية ويسمح بالبدء في التنفيذ وبناء عليه يعتبر تاريخ 2023/8/26 هو تاريخ استلام الموقع وبدء الأعمال بالعملية واقفل المحضر على ذلك ووقع الحضور

رئيس الإدارة الركزية

منطقة غرب الدلتا

"هانی محمد محمود طه"

. مهندس

التوقيعات

15:11 2,54

3- معود فاويش --2 -3°-1



		سيدي کرير	ALA LINIA	مشروع القطار الكهريائي قالق إلسرعة قطاع (الما المقايسة التقاديرية لينود الإعمال تنفيار المؤسسة المصرعة ا القطاع من المحطة 476+600 الي 4600	
۲۹۳	Lán	4.0	ingl.	ميان الأعماق	الم اليلد
and a second sec			Contraction of the local dial	اعمل فرنم	7
2,376,716	85	27,961.36	34	اعمل تحمل و توريد و تقل اترية مقاولة للبراعطان و تشابلها باستقاعاً بالدورة يسمك 7 بزيد عن ٥٠ مم ملى مضوب . ٢م تر و يسمك الإزيد عن ٥-لم النشاط المعدوب التصعيم لتشكيل الجمر و (2010 رقسية تمثل للقراريا التل عن ٥٠٤) ورشها بلعباة الأصرابية الزمس فى نسبة الرطوبة المكرية و تعمل قابد يقور اسان الرصول فى شمى علقة وقة (٥٢ من الألذ يجمع مشتلاته طريقا الصول فى نسبة الرطوبة المكرية و تلفاحات بعرضية المرتبية و الرسومات القدمان الاروبية ال المكانية عودية مشتلات المعرف المكرية المكرية و تلفاحات بعرضية المرتبية و تصديدات العربية المكرية مناورية الم - السعر بلمان عمل القرر بقر المشاهبة عالم 1.1 جائبة اللم بالزيدة اع القداري و تخيمات المؤسس المقررات. - السعر بقمل عمل القرر بقر المشاهبة و القابرات القرارية او القامان . - السعر بقمل قولية المقابية و القابرات الق	3
8,259,785	295.40	27,961.36	3,-	هاترة سلطة الذي ٦١٣ غر	
363,498	13	27,961.36	30	هاكرة تحصيل رسوم النذرنة والمرازين طبلا للالمة للترنة الإطنية	
11,000,000				الإجمالي	
			1.0	(فقط أحد عشر مليونا جنية مصري لاه	-





منير علم المشروعات (الهيئة)

حسلي فياض

الممسوحة ضوئيا بـ CamScanner



قائمة الكميات الواردة بالمستخلص جاري (١)

مشروع: أعمال الجسر الترابي لمسار القطار الكهرباني السريع الخط الأول (العين السخنة - مطروح) قطاع (العلمين/فوكة) لتنفيذ المسافة من الكم ٢٠٠ + ٧٦ الى الكم ٢٠٠ + ٧٧ بطول ١ كم إتجاه سيدي كرير

رقم البند و بيانه : (٢-١) اعمال تحميل وتوريد ونقل اتربة صالحة للردم مطابقة للمواصفات

		٣	• •	مقدار العمل السابق :			
الابعاد (متر)		کیلومتري	الموقع ال	T 15 N N -550 -5			
مساحة المقطع	طول	الى	من	بيان الاعمال بالمقايسة			
47,01	0	£77+1	٤٧٦+٦٠٠	القطاع الأول			
۱۸,۳٤ ۵		٤٧٧+٦٠٠	٤٧٧+١٠٠	القطاع الثاني			
	اجمالي الكميات خلال فترة المستخلص الحالية (م٣)						
	الاجمالـــــي الكلــــي (م٣)						
	مساحة المقطع ۳۷,0۸	طول مساحة المقطع ۳۷,۰۸ ۰۰۰ ۱۸,۳٤ ۰۰۰	كيلومتري الايعاد (متر) للى طول مساحة المقطع ٢٠٠٠ ٢+٧٧٤ ٢٠٠٠ ٨٥.٧٣ ٢٠٠٠ ٢+٧٧٤ ٢٠٠٠ ٢٠.٣٤ ٢٠٠٠ ٢+٧٧٤ ٢٠٠٠ ٤٧٣	من الى طول مساحة المقطع ٣٧,٥٨ ، ٠٠ + ٢٧٤ ، ٠٠ ٨٥. ٩٧٧ ١٨,٣٤ ، ٠٠ + ٢٧٤ ، ٠٠ ١٨,٣٤ ١٨,٣٤ ، ٠٠ + ٢٧٤ ، ٠٠ ٤٧٢ ٠٠٠ - ٢+٧٧٤ ، ٠٠ - ٢٠٥ - ٢٠٥ مراك - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٢٠٠ - ٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠ - ٠٠٠٠ - ٠٠٠ - ٠٠٠٠٠ ٠٠٠ - ٠٠٠ - ٠٠٠ ٠٠٠٠٠٠			

مهندس الهينة

م / ایراهیم الحناوی

مهندس الاستشاري مكتب داسعد الجيوشي

م/مصطفي نجم

مهندس الاستشاري مكتب XYZ م / محد خليل

Lioh

م / محمود شاویش

مهندس الشركة

in glisger



قائمة الكميات الواردة بالمستخلص جاري (١)

مشروع: أعمال الجسر الترابي لمسار القطار الكهربائي السريع الخط الأول (العين السخنة - مطروح) قطاع (العلمين/فوكة) لتنفيذ المسافة من الكم ٢٠٠ + ٢٧ ٤ الى الكم ٢٠٠ + ٧٧ ٤ بطول ١ كم إتجاه سيدي كرير

رقم البند و بيانه : (٢-١) علاوة مسافة النقل ٢١٣كم

ت<u>نفي</u> : شركة المؤسسة المصرية المتحدة

۳۵. مقدار العمل السابق :

الكمية	الابعاد (متر)		لكيلومتري	الموقع ا		
	مساحة المقطع	طول	الى	من	بيان الاعمال بالمقايسة	
18891,12	۳۷,۰۸	0	£77+1	£71+1	القطاع الأول	
910.,77	۷۰,۲۲ ۱۸,۳٤		·,YY 11,74 0 £YY+3	£77+1	القطاع الثاني	
۲۷۹٦١,٣٦		بة (٣م)	ة المستخلص الحالي	، الكميات خلال فتر	اجمالي	
۲۷۹٦١,٣٦		аналан айтар ал ал айтар а айтар	ب الكلي (م٣)	الاجمالــــــ	1994 - 1997 - 1996 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	

مهندس الهينة

<u>ابر المناوى</u>

مهندس الاستشاري

in

مكتب د/سعد الجيوشي

2(9) 2(9) (699,2023 م/مصطفي نجم

مكتب XYZ م / محد خليل

مهندس الاستشاري

His

مهندس الشركة

م / محمود شاویش a ge vilging



قائمة الكميات الواردة بالمستخلص جاري (١)

مشروع: أعمال الجسر الترابي لمسار القطار الكهرباني السريع الخط الأول (العين السخنة - مطروح) قطاع (العلمين/فوكة) لتنفيذ المسافة من الكم ٢٠٠ + ٢٧ الى الكم ٢٠٠ + ٧٧ بطول ١ كم إتجاه سيدي كرير

رقم البند و بيانه : (٢-١) علاوة تحصيل رسوم الكارتة والموازين طبقا للائحة الشركة الوطنية

م ۳ مقدار العمل السابق :

الكمية	الابعاد (متر)		کیلومتري	الموقع ال		
	مساحة المقطع	طول	الى	من	بيان الاعمال بالمقايسة	
18891,12	34,01	o £VV+1 £V1	٤٧٦+٦٠٠	القطاع الأول		
917.72	۷۰,۲۲ ۱۸,۳٤		·,YY 11,7°£ 0 £YY+7	£ Y Y + 1	القطاع الثاني	
28921,22		(۳۳) ²	ة المستخلص الحالية	لي الكميات خلال فتر	اجما	
*****		الاجمالـــــي الكلـــي (م٣)				

مهندس الهيئة مهندس الاستشاري مهندس الاستشاري مهندس الشركة مكتب د/سعد الجيوشي مكتب XYZ م الحناوى م/مصطفي نجم م / ایراه م / محمود شاویش محصور انسا ولتر کس م / محد خليل in Mois 3

مشروع القطار السريع (العلمين -فوكة)

الموسسة المصرية المتحدة من المحطة 475+600 الى المحطة 478+000

محضر تحديد مسافة نقل

(نقل الاترية)

الله في يوم الاربعاء الموافق :- 2022/5/18

يناء على طلب المقاول المؤسسة المصرية المتحدة للمقاولات العامة لتحديد مسافة نقل الاترية من محجر (المصرية) على طريق وادى النظرون العلمين للمشروع المذكور أعلاه.

تم زيارة المحجر من قبل:-

ممثل الهينة العامة الطرق والكباري مدير مشروع الاستشاري مكتب درسعد الجيوشي

ممثل استشارى المسلحة مكتب المساحة XYZ

مندوب المؤسسة المصرية المتحدة

السيد المهندس / ابراهيم الحناوي
 السيد المهندس / مصطفى نجم
 السيد المهندس / محمد خليل

4- السيد المهندس / محمود شاويش

وتبين ان المحجر على مسافة 213 كم من منتصف قطاع المؤسسة المصرية المتحدة

N 30°33'19 .7"	E 29°45'06. 7"	احد اثي المحجر
N 31° 2'18.80"	E 28°11'30.38"	احداثي منتصف القطاع

وعلى ذلك تم توقيع ، ،

-4 the 13 -4

B. I -3

('m -2

Y-1

MATERIA INSPECTIC REQUES	INI Robert Redail	BalaTetal A SGAC 4423		مزارة النقل	69
Contractor Company	United Egypt	ion Foundation	De	signer Company	SVSTIN DES SHARE
Issued by	Name	Sign n	-		SGAC
Contractor	Mahmoud Shawish		Da		Time
		AL		5.8.2m	
Received by		1		1.0.62	

in inn ...

CODE-1		
\$1 to \$21	D1 to S3	The second second
CODE - 2 Station Reference	Depot Reference	Kp XXX Note
CODE - 3	Work Activity	For Kilometer point only Start Km is used

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Gi

Sub Element of Activity

Description of Materials		Fill material results 1-From station477+060 to station 477+220 (-5.5)						
Suppl	lier Name				Date			
Test F	Requirement		c,	pecification				
Refer	ence Photos	Yes attached / No		ther	Clause			
Item	Description	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-	ther				
1	L.L & P.L & O.M.(° 6/	Unit	Quantity	Arrival Date	Note		
2	Proctor	- 70	m3	5000		HOLE		
3	Classification		m3	5000				
4	Seive analysis		m3	5000				
Comr	nents by:		m3	5000				
Asamj	ple has been taken f	orm fill material by SG/	AC office	Comments by	14			
	(marks							
10	(CEL) lab and t icontions and accept	the results founded me	et the					
specifi	(CEL) lab and t icontions and accept	the results founded me ted	et the	AL STATUS				
specifi Organ	ICELI lab and t Icontions and accept hisation Name	ted	APPROVA		Date	A-AWC-R		
Organ Contra	ICELI lab and t Icontions and accept hisation Name actor	ted Kamel Shehab	APPROVA	al status	Date	A-AWC-R		
specifi Organ	ICELI lab and t Icontions and accept hisation Name actor	ted	APPROVA		Date	A-AWC-R		
Organ Contra QA/Q	ICELI lab and t Icontions and accept hisation Name actor	ted Kamel Shehab	APPROVA		Date	A-AWC-R		
Organ Contr QA/Q GARB	ICELI lab and t Icontions and accept hisation Name actor	Kamel Shehab	APPROVA		Date	A-AWC-R		

INSPEC REQU	TION	المرية المالية المارق و الكوارجة (GAND)	A sure	SGAC	رات المندسية ريدو فطرق الديوشيع د الديوشيع	الثاني الما (خيره	ير	ار <i>ة</i> النة 8	1	5.	WSTIN		SHAKER
Contracto Company	r	United Egyption Foundation						Designer Company			SGAC		
issued by	Nam	ne	Sign	W	1	Date					Time		
Contractor	Mah	moud Shawiesh	1	K		1	8.8	.2.	-				
Received b	Y	1 de ofer		-	MIR	C1	CZ	C3	DD	MM	YY	НН	MM
CODE-1	51	S1 to S21 ation Reference	D1 to 53 Depot Reference For Kilome							Kp XXX Note neter point only Start Km is used			
CODE-2 CODE-3				Work Activity Sub Element of Activity							is used		

Desc	cription of Materials					Fill material results				
1-From station47 2-From station47				5+900 to s 7+000 to s	tation 47 tation 47	7+060 (7+220 (-5.5) -5.5)			
MAR	Approval No	here		_			Date			
Suppl	lier Name									
Test R	Requirement			Spe	ecification		Clause	1.414.2		
Refere	ence Photos	Yes attack	hed / No	Oth	her			STATE OF		
Item	Description		-	Unit	Qu	antity	Arrival Date	Note		
1	CBR		m3		10000					
Comm	ents by:				Comme	nts by:				
to	ole has been ta (CEL) lab contions and a	ken form fill mate and the results for accepted	rial by SGA unded mee	AC office at the						
				APPROVAL	STATUS		1.5			
Organis Contrac		Kamel Sheh		Sign	in		Date	A-AWC-R		
A/QC	•	Ram	d	4	the	el,	0			
ARB** Eng/ Mostafa Negm		C	~	ty						
omme	nt by ER	1								
nploye	ers		-							

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Page 1 of 1



Consulting Engineering Bureau & Laboratories

Company Name	: EGYPTIAN UNITED GROUP
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (477+000)
Delivery Date	: 09/08/2022
Reporting Date	: 15/08/2022
Reporting No.	: 29
Sample No.	: 26

Dear Gentleman,

Attached here with the Soil Replacement delivered on 09/08/2022

Materials test

0

- 1. Sieve analysis according to ASTM D-422.
- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- 5. Proctor test according to ASTM D-1557.
- 6. CBR according to ASTM D-1883.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

CEL ل الاستقبار ايم. ال Signature

3 El Malek El Afdal Street Zamalek, Cairo. Tel.& Fax : 27367231 - 27363093



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مكتب معامل الإستشارات الهندسية

Company Name	: EGYPTIAN UNITED GROUP
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (477+000)
Delivery Date	: 09/08/2022
Reporting Date	: 15/08/2022
Reporting No.	: 29
Sample No.	: 26

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Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %
50	98.5
37.5	92.7
25	84.1
19	73.7
12.50	61.8
9.50	56.8
4.75	51.2
2.36	48.1
2.00	43.4
1.18	40.8
0.600	33.9
0.425	28,9
0.300	21.5
0.150	15.1

CEL Signature

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Company Name	: EGYPTIAN UNITED GROUP
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (477+000)
Delivery Date	: 09/08/2022
Reporting Date	: 15/08/2022
Reporting No.	: 29
Sample No.	: 26

<u>Materials finer than 75 μm (no.200) sieve</u> by washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 µM (No.200)	13.4

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CEL مالكب معامل الإستشار غاد الهذ السلحل الشقال 121 Signat

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3

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Louis	: EGYPTIAN UNITED GROUP : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
project	: Soil Replacement (Embankment)
Type of sample	
Location	: St. (477+000)
Delivery Date	: 09/08/2022
Reporting Date	: 15/08/2022
Reporting No.	: 29
Sample No.	: 26

Results of liquid	limit and	plasticity index
of soils accord	ding to AS	STM D-4318

Test	Results (%)
Liquid Limit	25.8
Plastic Limit	19.7
Plasticity Index	6.1

CEL السغ ات ال Signature

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4

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ampany Name	: EGYPTIAN UNITED GROUP
project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (477+000)
Delivery Date	: 09/08/2022
Reporting Date	: 15/08/2022
Reporting No.	: 29
Sample No.	: 26

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)		its accordin rojects Specs	g
 Group Classification 	(A-2-4)*	(A-1-a)	(A-1-b)	(A-2-4)*
2.00 mm (No.10).	43.4	Max 50 %		
	28.9	Max 30 %	Max 50 %	
0.425 mm (No. 40). 0.075 mm (No. 200).	13.4	Max 15 %	Max 15 %	Max 15 %
Characteristics of fraction pa	ssing 0,425 mm (N	0.40)		-
Liquid Limit	25.8			
Plasticity index	6.1	Max 6 %	Max 6 %	Max 10 %

* Only allowed in lower embankment

The test results are (c Comply - D Not Comply) with specifications limits Signature /

4

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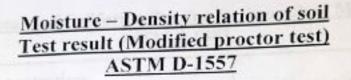
6

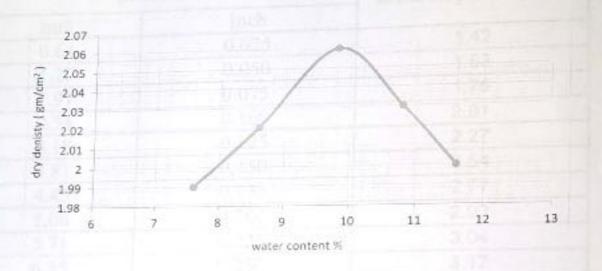


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project	: EGYPTIAN UNITED GROUP : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : Soil Replacement (Embankment)
Type of sample	
Location	: St. (477+000)
Delivery Date	: 09/08/2022
Reporting Date	: 15/08/2022
Reporting No.	: 29
Sample No.	: 26





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- Max dry density (gm/cm²) : 2.06
- Optimum moisture content % : 9.8

CEL مكتب معامل الأستشارات الهلد المسلحل الش Signal

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apany Name : EGYPTIAN UNITED GROUP

project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (477+000)
Delivery Date	: 09/08/2022
Reporting Date	: 15/08/2022
Reporting No.	: 29
Sample No.	: 26

Test Results of California Bearing Ratio on Base Materials **ASTM D 1883**

pen	etration	stress on piston (Mpa)
mm	Inch	1.42
0.64	0.025	1.42
1.27	0.050	
1.91	0.075	1.75
2.54	0.100	2.01
	0.125	2.27
3.18	0,150	2.54
3.81	0.175	2.77
4.45	0.200	2.92
5.08	0.225	3.04
5.71		3.17
6.35	0.250	
	Strass (Mna)	CBR %

lue	Sample results	29.11
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2.01	
	lue	2.01

Notes:

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1- Attached graph shows penetration resistance versus penetration magnitude. 2- The sample was compacted to dry density of 2.06 (gm /cm3)

at 9.8% optimum water content. Surcharge It Signature

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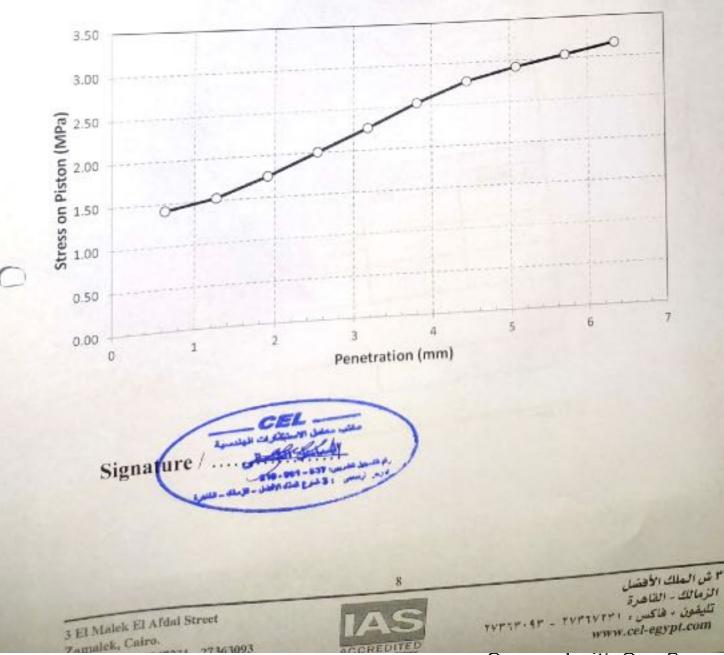
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me	Consulting Engineering Bureau & Laboratories مكتب معامل الإستشارات الهندسية
pany Name	: EGYPTIAN UNITED GROUP
and the second s	A An Nokhna to Marsa Matroun
Type of sample	: Soil Replacement (Embankment)
Location	: St. (477+000)
Delivery Date	: 09/08/2022
Reporting Date	: 15/08/2022
Reporting No.	: 29
Sample No.	: 26

Load Penetration Curve of CBR Test ASTM D-1883

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MATERI INSPECTI REQUES	ON under and	A.	ران و الطريق جانون	مرکز الاستقو النظرو فعم الحود	للنهي	with	61	ATTEN		
Contractor Company	United Egypt	ion Foundatio	m	Design	er Com	pany	SGA			
Issued by	Name	Sign	1	Date		-	Time	1	-	-
Contractor	Mahmoud Shawish	D		19.9	8.2	m				
Received by ER			MIR	CI I	à a	00	MM	TT	HH	MM

19

CODE-1	S1 to S21 Station Reference	01 to 53 Depot Reference	Kp XXX Note For Kilometer point only Start Rm is used
CODE-2		Work Activity	
CODE - 3		Sub Element of Activity	

1000	cription of	Materials	Fill material results							
Loca	ation to be	Used	1-From station47	6+740	to stati	ion 476+900 (-	-5.5	;)		
MAR	Approval 1	No						Date		
Supp	olier Name	11111			-					
Test	Requireme	nt		Specification				Clause		
Refe	rence Photo	05	Yes attached / No	6	Other			NIXED.		
Item	Descripti	on		Uni	t	Quantity	A	rrival Date	Note	
1	and the second se	& O.M.C 9	6	m3		5000	-		1000	
2	Proctor		M-SHARE	m3		5000				
3	Classifica	tion	and the second second	m3		5000				
		r			5000					
4	Serve ana	IIY3I3					the second se			
Comr	nents by:		n fill material by SG		-	omments by:				
Comr Asam to specifi	nents by: ple has been (CEL) la contions an	taken forr	results founded me	AC offic	-	omments by:				
Comr Asam to specifi	nents by: ple has been (CEL) la	taken forr	results founded me	AC offic	val st	omments by:		Date		A-AWC-R
Comr Asam to specifi	nents by: ple has been (CEL) la contions an isation	taken forr ab and the d accepted Name	results founded me	AC offic eet the APPRO Sign	val st	omments by: ATUS		Date		A-AWC-R
Comr Asamı to specifi Organ	nents by: ple has been (CEL) la icontions an isation actor	taken forr ab and the d accepted Name	mel Shehab	AC offic eet the APPRO Sign	vAL ST	omments by: ATUS		Date		A-AWC-R
Comr Asamı to specifi Organ Contra	nents by: ple has been (CEL) la contions an isation actor	taken forr ab and the d accepted Name Ka	mel Shehab	AC offic eet the APPRO Sign	vAL ST	omments by: ATUS		Date		A-AWC-R
Comr Asamı to specifi Organ Contra QA/QC SARB*	nents by: ple has been (CEL) la contions an isation actor	taken forr ab and the d accepted Name Ka	mel Shehab	AC offic eet the APPRO Sign	vAL ST	omments by: ATUS		Date		A-AWC-R

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Page 1 of 1

Consulting	Engineering	Bureau & L	aboratories
2	تشارات الهند	معامل الإس	مكتب

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Margaret, Margaret

Company Name	: EGYPTIAN UNITED GROUP
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+700)
Delivery Date	: 13/08/2022
Reporting Date	: 19/08/2022
Reporting No.	: 30
Sample No.	: 27

Dear Gentleman,

Attached here with the Soil Replacement delivered on 13/08/2022

Materials test

- 1. Sieve analysis according to ASTM D-422.
- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- 5. Proctor test according to ASTM D-1557.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signatu

3 El Malek El Afdal Street Zamalek, Cairo. Tel.& Fax : 27367231 - 27363093



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Company Name	: EGYPTIAN UNITED GROUP
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+700)
Delivery Date	: 13/08/2022
Reporting Date	: 19/08/2022
Reporting No.	: 30
Sample No.	: 27

Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %
50	100
37.5	91.4
25	83.4
19	70.6
12.50	61.3
9.50	50.8
4.75	43.5
2.36	40.8
2.00	38.1
1.18	34.9
0,600	26.8
0.425	23.3
0.300	18.9
0.150	13.8

Signature

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Company Name	: EGYPTIAN UNITED GROUP
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+700)
Delivery Date	: 13/08/2022
Reporting Date	: 19/08/2022
Reporting No.	: 30
Sample No.	: 27

<u>Materials finer than 75 µm (no.200) sieve</u> by washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 μM (No.200)	9.3

CEL 10.0 Signature

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project	: EGYPTIAN UNITED GROUP : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+700)
Delivery Date	: 13/08/2022
Reporting Date	: 19/08/2022
Reporting No.	: 30
Sample No.	: 27

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	26.7
Plastic Limit	18.6
Plasticity Index	8.1

Signature

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۲ ش الملك الأفضل الزمالك - القاهرة تليفوز + فاكس ، ۲۷۳۶۷۲۴۱ - ۲۷۳۶۳۰۹۴ www.cel-egypt.com





anpany Name	: EGYPTIAN UNITED GROUP : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+700)
Delivery Date	: 13/08/2022
Reporting Date	: 19/08/2022
Reporting No.	: 30
Sample No.	: 27

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits according Projects Specs				
Group Classification	(A-2-4)*	(A-1-a)	(A-1-b)	(A-2-4)*		
	38.1	Max 50 %				
2.00 mm (No.10).	23.3	Max 30 %	Max 50 %			
0.425 mm (No. 40). 0.075 mm (No. 200).	9.3	Max 15 %	Max 15 %	Max 15 %		
Characteristics of fraction pa	ssing 0.425 mm (N	(0.40)		-		
Liquid Limit	26.7					
Plasticity index	8.1	Max 6 %	Max 6 %	Max 10 %		

* Only allowed in lower embankment

The test results are (Z Comply - D Not Comply) with specifications limits

CEL Signatu

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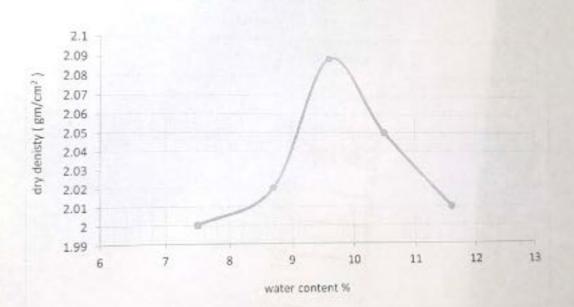
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۳ ش الملك الأفضل الزمالك - القاهرة تليفون + فاكس ، ۲۷۳۱۷۲۳۱ - ۲۷۳۱۳۰۹۳ www.cel-egypt.com

	General GEL
	Consulting Engineering Bureau & Leboratories
pany Name	: EGYPTIAN UNITED
niect	Express Traine
Type of sample	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : Soil Replacement (Embankment)
Location	: St. (476+700)
Delivery Date	: 13/08/2022
Reporting Date	: 19/08/2022
Reporting No.	: 30
Sample No.	: 27

<u>Moisture – Density relation of soil</u> <u>Test result (Modified proctor test)</u> <u>ASTM D-1557</u>



Max dry density (gm/cm2) : 2.09

Optimum moisture content % : 9.6



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MATERIAL INSPECTION REQUEST	البرهالمارية الطرق و الكياري (19449)	A	SGAC	مرکز الإستطوات المنصبة عمر و مدرت و مدرد (مرد بویی) (کتور) سمد الجواشی	مزار <u>د النمر</u>	

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Contractor Company	United Egypt	ion Foundati	on	Desi	gner C	ompa	ny	SGA	С		
Issued by Contractor	Name	Sign	-	Date	1. I.			Time			
	Mahmoud Shawish	X		27	.9	.2:	22				
Received by ER			MIR	C1	C2	<u>C</u> 3	DD	MM	99	HH	MM

CODE-1	51 to 521 Station Reference	D1 to 53 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used				
CODE-2	Work Activity						
CODE - 3	Sub Element of Activity						

Descr	ription of N	Naterials			F	ill material	res	ults		-
Location to be Used 1-From station476 3-From station476				5+000 t	to sta	tion 476+080 (-	2.5	1		
MAR	Approval N	10						Date		_
Supp	lier Name									
Test	Requireme	nt			Spe	cification		Clause	_	
Refer	rence Photo	25	Yes attached / No		Oth	er	- 1			
Item				Unit			Ar	Arrival Date Note		
1	and the second se	L & P.L & O.M.C %		m3	-	5000	1	invar Date	Note	
2	Proctor			m3			5000			
3	Classifica	Classification			m3 5000		-		-	
4 Seive analysis				m3	5000		-		-	
Comr	ments by:	2		-		Comments by:			-	
to	(CEL)	ab and th	14.5	et the		1984 - 1994 - 1994 - 1994 - 1994 - 1994 - 1994 - 1994 - 1994 - 1994 - 1994 - 1994 - 1994 - 1994 - 1994 - 1994 -				
Organ	nisation	Name		and the second se		STATUS				
Contr			(amel Shehab	Sig /		1 -	-	Date		A-AWC-R
QA/Q	IC *	1	imal	- 1	41	121	~	>		-
GARB** Eng/ Mostafa Negr		/ Mostafa Negm	(Mu	-				
Comm	ent by ER			1	-	4				
Emplo					-		-			
Repre	sentative									

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REQUEST (TANN) The paired and (sold the second seco	MATERIAL INSPECTION REQUEST	-	A A		مركز الإستشرات المندسية تعتار و تعاريد و تعاري ا مرد مواهد ا عكتون سعد الجيوشيي	مز <u>ارة النقل</u>	
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ALC: NO.

41

CODE - 3				Work Acti Jement of			100	01010-00	1000			
CODE-1	SI to S21 Station Reference	D1 to S	rence		Fo	r Kilome	Kp X ter point	Of Note		s used		
Received by ER			•	MIR	<u>с</u> т.	Q	8	DD	MM	YY	нн	545
Contractor	Mahmoud Shawlesh	5			2	7.9	2	22				
issued by	Name	Sign	AS	1	Date	1			Time		-	
Contractor Company	United Egypti	on Fou	ndation		Desi	gner (omp	iny	SGA	c		

Desc	ription of Mat	terials				Fill material	results				
Location to be Used 4-From station 5-From station			1-From station470 2-From station470 3-From station470 4-From station470 5-From station470	6+300 1 6+080 1 6+000 1	to static to static to static	n 476+540 n 476+200 n 476+080	(-3) (-2.5) (-2.5)				
MAR	Approval No						Date	1			
Suppl	lier Name							-			
Test F	Requirement				Specific	ation	Clause				
Refer	ence Photos		Yes attached / No		Other			-			
Item	Description			in		Unit Quantity		Arrival Date	Arrival Date Note		
1	CBR			m3		10000		mote			
Comm	ents by:	_			1	mments by:					
10	ple has been t (CEL) lab icontions and	and the	n fill material by SGA results founded mee	AC offic et the	e						
lenan	sation 1	Name			VAL STA	TUS			-		
ontra			amel Shehab	Sign	on	2	Date		A-AWC-R		
A/QC	•	K	anal		t	21/					
ARB*		Eng/	Mostafa Negrn	1	1	M					
	and the second se			-							
omme	ent by ER	1									

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Page 1 of 1



Company Name Project	: EGYPTIAN UNITED GROUP
	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+640)
Delivery Date	: 21/09/2022
Reporting Date	: 27/09/2022
Reporting No.	: 51
Sample No.	: 20

Dear Gentleman,

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Attached here with the Soil Replacement delivered on 21/09/2022

Materials test

- 1. Sieve analysis according to ASTM D-422.
- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- 5. Proctor test according to ASTM D-1557.
- 6. CBR according to ASTM D-1883.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken



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Company Name	: EGYPTIAN UNITED GROUP
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+640)
Delivery Date	: 21/09/2022
Reporting Date	: 27/09/2022
Reporting No.	: 51
Sample No.	: 20

Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %
50	100
37.5	88.9
25	79.1
19	72.7
12.50	66.3
9.50	58.4
4.75	38.7
2.36	37.2
2.00	35.8
1.18	31.1
0.600	29.4
0.425	28.5
0.300	23.5
0.150	17.1

CEL مكتب معلمل الاستشار التدالهندسية Signature /. Ball Went 219-001-537 الا الرابيسي: 3 شارع الدلك الاختان - الزمالة - اللام

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Company Name	: EGYPTIAN UNITED GROUP
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+640)
Delivery Date	: 21/09/2022
Reporting Date	: 27/09/2022
Reporting No.	: 51
Sample No.	: 20

<u>Materials finer than 75 µm (no.200) sieve</u> by washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 µM (No.200)	11.6

CEL 15.0 ala 11/3 Signature /. 31 210-291-237 14,44 يز الرئيس : 3 شارع الله الافتان 11-

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	Consulting Engineering Bureau & Leboratories مكتب معامل الإستشارات الهندسية
Company Name	
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+640)
Delivery Date	: 21/09/2022
Reporting Date	: 27/09/2022
Reporting No.	: 51
Sample No.	: 20

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	NP
Plastic Limit	NP
Plasticity Index	NP

اے الولندہ Signature /. 218-001-837 از الرابسي: 3 شارع الله الأطل - الرمال - اللا

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Company Name Project Type of sample	: EGYPTIAN UNITED GROUP : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : Soil Replacement (Embankment)
Location	: St. (476+640)
Delivery Date	: 21/09/2022
Reporting Date	: 27/09/2022
Reporting No.	: 51
Sample No.	: 20

Soil Classification According to Project Specs (Embankment)

Tiojee	ets Spees
(A-1-a)	(A-1-b)
Max 50 %	
Max 30 %	Max 50 %
Max 15 %	Max 15 %
	Max 50 % Max 30 %

The test results are (Comply - D Not Comply) with specifications limits

CEL مكتب معامل الإستشارات الزلد Signature 19/1/11/1

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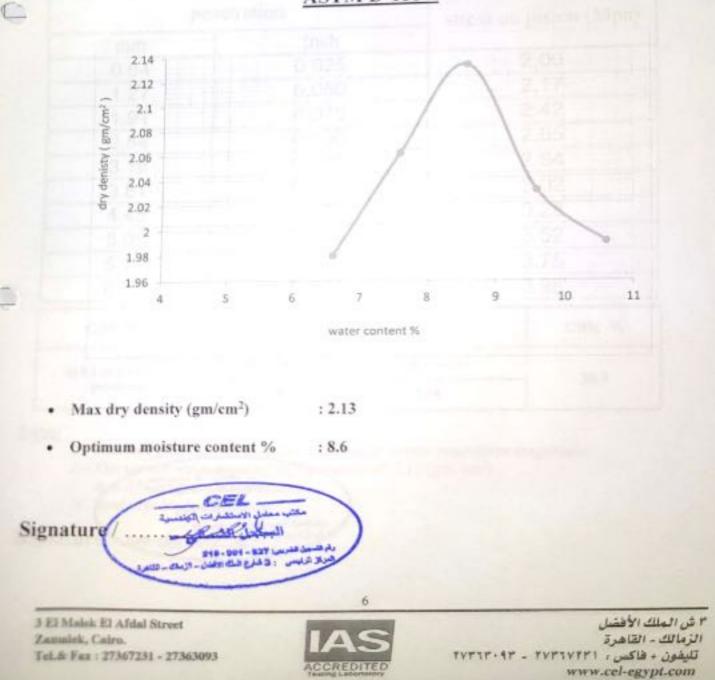
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Company Name Project Type of sample	: EGYPTIAN UNITED GROUP : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : Soil Replacement (Embankment)
Location	: St. (476+640)
Delivery Date	: 21/09/2022
Reporting Date	: 27/09/2022
Reporting No.	: 51
Sample No.	: 20

<u>Moisture – Density relation of soil</u> <u>Test result (Modified proctor test)</u> <u>ASTM D-1557.</u>





Company Name	: EGYPTIAN UNITED GROUP
project Type of sample	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : Soil Replacement (Embankment)
Location	: St. (476+640)
Delivery Date	: 21/09/2022
Reporting Date	: 27/09/2022
Reporting No.	: 51
Sample No.	: 20

Test Results of California Bearing Ratio on Base Materials **ASTM D 1883**

pe	netration	stress on niston (Mno)
mm	Inch	stress on piston (Mpa)
0.64	0.025	2.00
1.27	0.050	2.17
1.91	0.075	2.42
2.54	0.100	2.55
3.18	0.125	2.84
3.81	0.150	3.02
4.45	0.175	3.25
5.08	0.200	3.52
5.71	0.225	3.75
6.35	0.250	3.98

CBR Result	St	Stress (Mpa)					
At 0.1 inch (2.54 mm) penetration	St. Value	Sample results					
	6.90	2.55	36.9				

Notes:

- 1- Attached graph shows penetration resistance versus penetration magnitude.
- 2- The sample was compacted to dry density of 2.13 (gm /cm3)
- at 8.6 % optiming water content. 3- Surcharge loaded tin Kigt

Signature 219 - 001 - 337 Lunis ز الرابسي 331

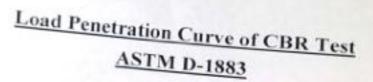
3 El Malek El Afdal Street Zamalek, Cairo, Tel.& Fax: 27367231 - 27363093

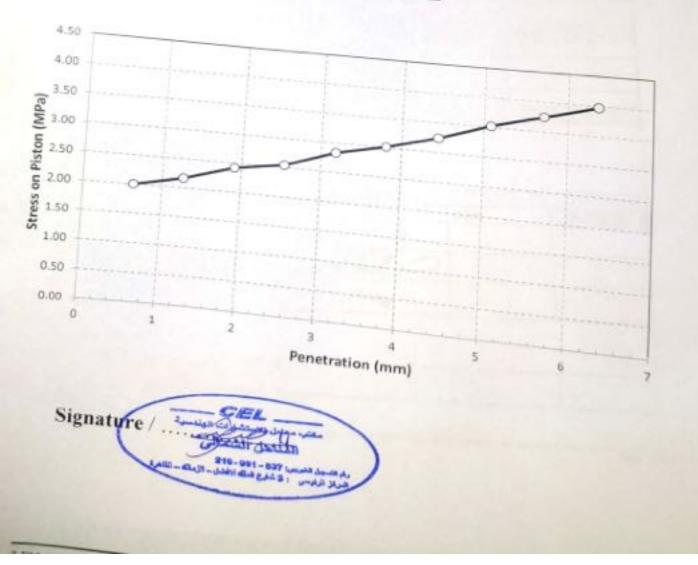


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Reporting Date Reporting No. Sample No.	Consulting Engineering Bureau & Laboratories المعتب معامل الإستقارات الهتدسيد EGYPTIAN UNITED GROUP : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : Soil Replacement (Embankment) : St. (476+640) : 21/09/2022 : 27/09/2022 : 51 : 20	
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MATERIAL	A laix heles	SGAC	مركز الإستقارات المنصية تنقر وصفرت ومورق أخر مربير	وزارة النقل	
 REQUEST	104/03 (BMO)		دكتوار سعد الجيوشين	-	SUSTIN COME SHAREN
Contractor	Hulberd Freemblern Free	indation	Design	er Company	SGAC

Company	United Egypt	ion Fou	undatio	n					SGAC				
Issued by Contractor	Name	Sign	100	/	Date				Time	_			
	Mahmoud Shawish		8			17.10.2022				_			
Received by	1.200		and the second	MIR	CL.	a	3	DD	MM	YY	HH	MM	
ER				WILK									

C00E-1	51 to 521 Station Reference	D1 to 53 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE = 2		Work Activity	The state of the
CODE-3		Sub Element of Activity	

1	Description of Materials Fill material results											
1	Locati	on to be Use	đ	1-From station475 2-From station476								
1	MAR	Approval No		(667.001	-		-		Date		
	Supplier Name			/								
	Test Requirement			_	Spe	cification			Clause			
	Refer	ence Photos		Yes attached / No	1	Oth	ner					
	Item	Description	_		Un	it	Our	antity	Arr	ival Date	Note	
- 10	1	LL&PL&	D.M.C	%	m3	-	500		All	Ival Date	Note	
	2	Proctor		m3		_	5000		-	_		
	3	Classificatio	n	m3			5000		-			
	4	Seive analys	sis		m3		5000		-		-	
	Comr	nents by:			Comments by:				1			
e	Asample has been taken form fill material by SGAC office to <u>(CEL)</u> lab and the results founded meet the specificontions and accepted											
- 4	-		1		APPR	OVA	L STATUS	100				
4	Organ	hisation M	lame		Si	ign				Date		A-AWC-R
	Contr	actor		Kamel Shehab	1	an	r.	>				
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	GARB	••	Eng	g/ Mostafa Negm		5	1ú	w				
	Comn	nent by ER										
	Empl Repre	oyers						-				

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Contractor Company	United Egypti	on Foun	dation	Des	igner (Compa	влу	SGA	-				
Issued by	Name	Sign	R	Date	8	_	Time						
Contractor	Mahmoud Shawlesh			17	.10	.2	22						
Received by ER			MIS	-	<u>a</u>	G	00	MM	YY.	нн	MM		
CODE-1	SI to S21 Station Reference		D1 to 53 Depot Reference					Kp XXX Note For Kliometer point only Start Km is used					
CODE - 2			Work A Sub Element		*		-			-			

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Desc	ription of Mate	erials			Fill material	results				
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MAR	Approval No					Date				
Suppl	ier Name	100								
Test P	Requirement			Specific	ation	Clause				
Refer	ence Photos	Yes attached / I	No	Other						
Item	Description		Unit Quantity		Arrival Date	Note				
lomn	nents by:			Co	mments by:					
10	ple has been to (CEL) lab icontions and	aken form fill material by and the results founded accepted	meet the							
kenel	ication N	im.		IVAL STA	TUS					
Organisation Name Contractor Kamel Shehab		SIE	and	>	Date		A-AWC-R			
avac. Ramel			-	4	21	0				
AR8*		Eng/ Mostafa Negm	(-	m					
omm	ent by ER									

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ERIAL	andreade A State durated claber -
	Consulting Engineering Bureau & Laboratories مكتب معامل الإستشارات الهندسية
Company Name Project	
Type of sample Location	: Electric Express Trum : Soil Replacement (Embankment) : St. (475+540)
Delivery Date	: 11/10/2022 : 17/10/2022
Reporting Date Reporting No.	: 53
Sample No.	: 22

Dear Gentleman,

Attached here with the Soil Replacement delivered on 11/10/2022

Materials test

- 1. Sieve analysis according to ASTM D-422.
- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- 5. Proctor test according to ASTM D-1557.
- 6. CBR according to ASTM D-1883.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

Signature

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Company Name	: EGYPTIAN UNITED GROUP	
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh	
Type of sample	: Soil Replacement (Embankment)	
Location	: St. (475+540)	
Delivery Date	: 11/10/2022	
Reporting Date	: 17/10/2022	
Reporting No.	: 53	
Sample No.	: 22	

Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %
50	100
37.5	92.8
25	81.9
19	76.8
12.50	72.1
9.50	64.6
4.75	43.8
2.36	41.2
2.00	40.8
1.18	37.6
0.600	33.2
0.425	31.7
0.300	24.4
0.150	19.1

Signature

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3 El Malek El Afdal Street Zamalek, Cairo. Tel.& Fax : 27367231 - 27363093

معتب معندل الاستشغرات الهندسية العساريل الشيصالي (

بلا الروس : 3 مارع ملك المعدل - الرماعة-

נה בזוומים בבינות 807 -



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Company Name	
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (475+540)
Delivery Date	: 11/10/2022
Reporting Date	: 17/10/2022
Reporting No.	: 53
Sample No.	: 22

<u>Materials finer than 75 µm (no.200) sieve</u> by washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 μM (No.200)	12.9

CEL مكتب معامل الاستشارات الها Signature / الساحل الشبا ab فشريس: 107 - 100 - 109 - 109 10.1 یک از ایسی : 3 شارع د.2 الافنان - 3 مار ک - 12 N

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Company Name	Consulting Engineering Bureau & Laboratories مكتب معامل الإستشارات الهندسية : FCVPTIAN UNIT
Project	- STITIAN UNITED GROUP
Type of sample	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : Soil Replacement (Embankment)
Location	: St. (475+540)
Delivery Date	: 11/10/2022
Reporting Date	: 17/10/2022
Reporting No.	: 53
Sample No.	: 22

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Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
Liquid Limit	NP
Plastic Limit	NP
Plasticity Index	NP

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Company Name project Type of sample	: EGYPTIAN UNITED GROUP : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : Soil Replacement (Embankment)
Location	: St. (475+540)
Delivery Date	: 11/10/2022
Reporting Date	: 17/10/2022
Reporting No.	: 53
Sample No.	: 22

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Constant - of	ccording ts Specs
Group Classification	A-1-b	(A-1-a)	(A-1-b)
2.00 mm (No.10).	40.8	Max 50 %	
0.425 mm (No. 40).	31.7	Max 30 %	Max 50 %
0.075 mm (No. 200).	12.9	Max 15 %	Max 15 %

an

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Liquid Limit	NP		
Plasticity index	NP	Max 6 %	Max 6 %

The test results are (Comply - D Not Comply) with specifications limits

مكتب معامل الإستشغرات الهذ الساحل الشمال Signature

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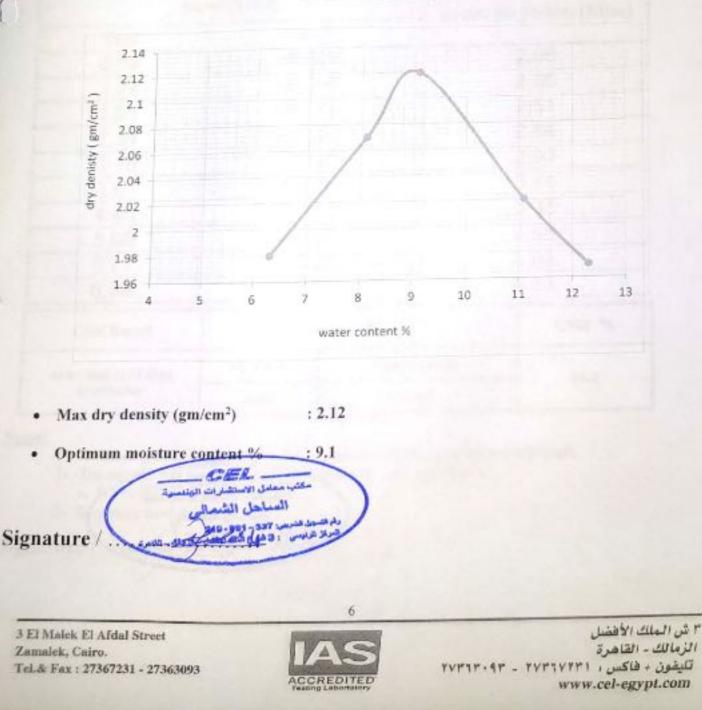
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Company Name project	: EGYPTIAN UNITED GROUP : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : Soil Replacement (Embankment)
Type of sample Location Delivery Date	: St. (475+540) : 11/10/2022
Reporting Date	: 17/10/2022
Reporting No.	: 53
Sample No.	: 22

<u>Moisture – Density relation of soil</u> <u>Test result (Modified proctor test)</u> <u>ASTM D-1557.</u>





Anna Nama	ECVETIAN UNITED CROUP
Company Name	
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (475+540)
Delivery Date	: 11/10/2022
Reporting Date	: 17/10/2022
Reporting No.	: 53
Sample No.	: 22

Test Results of California Bearing Ratio on Base Materials ASTM D 1883

per	netration	stress on piston (Mpa)
mm	Inch	suces on piston (wipa)
0.64	0.025	2.08
1.27	0.050	2.30
1.91	0.075	2.51
2.54	0.100	2.84
3.18	0.125	2.96
3.81	0.150	3.14
4.45	0.175	3.38
5.08	0.200	3.58
5.71	0.225	3.83
6.35	0.250	4.13

CBR Result	St	tress (Mpa)	CBR %
At 0.1 inch (2.54 mm)	St. Value	Sample results	
penetration	6.90	2.84	41.1

tes:

- 1- Attached graph shows penetration resistance versus penetration magnitude.
- 2- The sample was compacted to dry density of 2.12 (gm /cm3)
- at 9.1 % online in water content. 3- Surcharge load 4.50 K galati

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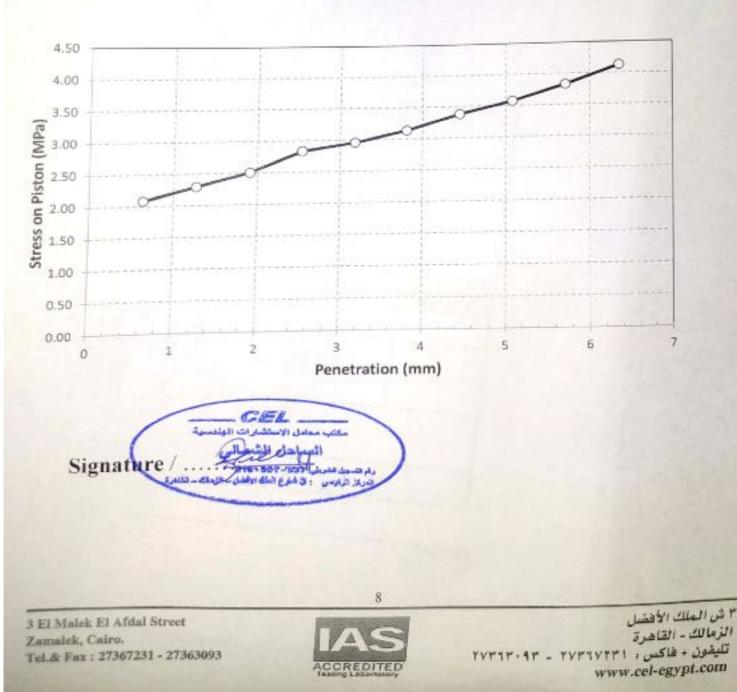
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many Name	: EGYPTIAN UNITED GROUP
pruny .	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
ope of sample	: Soil Replacement (Embankment)
Location	: St. (475+540)
Delivery Date	: 11/10/2022
Reporting Date	: 17/10/2022
Reporting No.	: 53
Sample No.	: 22

Load Penetration Curve of CBR Test ASTM D-1883



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-MATER INSPECT REQUE	المراجعة المراجعة ION		i laimas cenace hac hac hac hac hac hac hac hac hac hac	للطل و غطار (خراد ه	1	رة الذط	1	4	anteva		-
Contractor Company	United Egypt	tion Founda	tion	Desi	igner (Compa	any	SG	AC		
Issued by	Name	sign 1	1	Date	1			Time	e	-	
Contractor	Mahmoud Shawish	X		6.	11.	2:	22				
Received by ER	- innin		MIR	CI	Q	a	DO	MM	YY.	нн	MM

eter point only Start Km is used

-	cription of Mater	als		Fi	ll material	l res	ults		
Loca	ition to be Used	1-From station 2-From station 3-From station	476+640) to stati	ion 476+740	(-4)	5)		
MAR	Approval No					T	Date		
Suppi	lier Name							-	
Test F	Requirement			Specifi	ication	(Clause		
Refere	ence Photos	Yes attached / N	lo	Other					
tem	Description		Unit	t	Quantity	Arri	val Date	Note	
	LL& P.L& O.M.	:%	m3		5000		and the second state	THORE	
	Proctor		m3		5000		10.0		10.000
	Classification		m3	_	5000				
	Classification							-	
_	the second s		m3	-	5000				
omme ample	Seive analysis ents by: e has been taken fo <u>CEL)</u> lab and ti	orm fill material by SO te results founded m			5000 mments by:				
omme ample	Seive analysis ents by: e has been taken fo	ne results founded m ed	EAC offic eet the	e	mments by:				
ample (f	Seive analysis ents by: e has been taken fo <u>CEL)</u> lab and ti entions and accepto	ne results founded m ed	APPROV	e	mments by:				
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ample ample (cecifico ganisa htract	Seive analysis ents by: thas been taken for <u>CEL)</u> lab and ti entions and accepted ation Name	e results founded m	APPROV	e /AL STA	mments by:		Date		A-AWC-F
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ample ample (<u>l</u> ecifico ganisa tract	Seive analysis ents by: e has been taken for CEL) lab and ti ontions and acceptor ation Name or K Eng/	amel Shehab	APPROV	e /AL STA	mments by:		Date		A-AWC-F



Company Name Project	: Electric Express Train, from Al Ain Soknina to Marsa man
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+000)
Delivery Date	: 01/11/2022
Reporting Date	: 06/11/2022
Reporting No.	: 54
Sample No.	: 23

Dear Gentleman,

Attached here with the Soil Replacement delivered on 01/11/2022

Materials test

- 1. Sieve analysis according to ASTM D-422.
- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- 5. Proctor test according to ASTM D-1557.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

CEL. مكتب معلمل الاستشارات الوندسية المساحل الشمالي 210-991-027 W Signature

3 El Malek El Afdal Street Zamalek, Cairo. Tel.& Fax : 27367231 - 27363093



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Company Name	: EGYPTIAN UNITED GROUP
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+000)
Delivery Date	: 01/11/2022
Reporting Date	: 06/11/2022
Reporting No.	: 54
Sample No.	: 23

Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %
50	100
37.5	96.6
25	83.7
19	70.6
12.50	62.9
9.50	59.1
4.75	40
2.36	38.2
2.00	37.3
1.18	33.7
0.600	30.9
0.425	29.1
0.300	25.8
0,150	19.3

Signature /.

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السلعل الشم

001-337 W

مالك - والمال - المالك

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Company Name	: EGYPTIAN UNITED GROUP
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+000)
Delivery Date	: 01/11/2022
Reporting Date	: 06/11/2022
Reporting No.	: 54
Sample No.	: 23

Materials finer than 75 µm (no.200) sieve by washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 µM (No.200)	11.8

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3

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Company Name	: EGYPTIAN UNITED GROUP
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+000)
Delivery Date	: 01/11/2022
Reporting Date	: 06/11/2022
Reporting No.	: 54
Sample No.	: 23

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	A	Results (%)	
Liquid Limit	3 0	NP	N
Plastic Limit	E 8	NP	M
Plasticity Index		NP	
		MAR ES	
معتب معادل الإستشاريات الهادسية	Con Comp		
رم معمد مدينه 100-100 الشرولي			

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Company Name	: EGYPTIAN UNITED GROUP
project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+000)
Delivery Date	: 01/11/2022
Reporting Date	: 06/11/2022
Reporting No.	: 54
Sample No.	: 23

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)		ts Specs	
Group Classification	A-1-a	(A-1-a)	(A-1-b)	
2.00 mm (No.10).	37.3	Max 50 %		
0.425 mm (No. 40).	29.1	Max 30 %	Max 50 %	
0.075 mm (No. 200).	11.8	Max 15 %	Max 15 %	
Characteristics of fraction passing 0.4	25 mm (No.40))		
iquid Limit	NP			
lasticity index	NP	Max 6 %		

The test results are (Comply - D Not Comply) with specifications limits

مكتب معلمل الإستشار فتد افونك الساحل الشمائي 210-001-037 500000 3 nature / 10 14 140 - 17 -

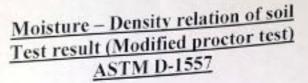
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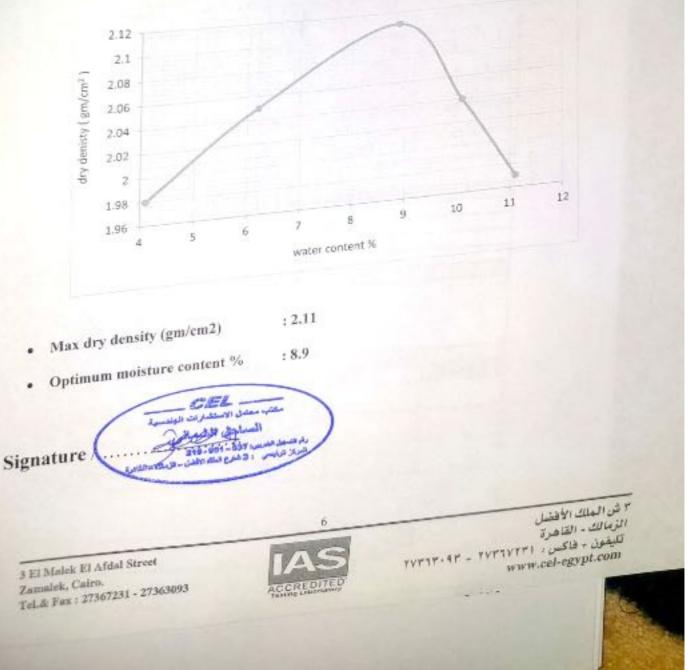


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way Name	: EGYPTIAN UNITED GROUP : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
et ample	
of sample	: St. (476+000)
Delivery Date	: 01/11/2022
Reporting Date	: 06/11/2022
Reporting No.	: 54
Sample No.	: 23





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MATERI INSPECTI REQUES	ON	الميتالمات الطرق و الكناري: (GARE)	A		ران المنصية رندو عدي برايين د الجيه أدي	للكل والط (خواد	1	illa,i	1	4	VSTR		-
Contractor Company		United Egy	otion For	undatio	'n	Desi	gner (Compa	ny	SGA	NC		
Issued by	Name		Sign	2	1	Date			_	Time		-	-
Contractor	Mahm	oud Shawish	9	P		6	.11.	20	22				
Received by ER					MIR	ci	12	<u>C3</u>	DD	MM	YY	HH	MM

.

CODE-1	SI to S21 Station Reference	D1 to 53 Depot Reference	Kp XXX Note For Kilometer point only Start Rm is used
CODE-2		Work Activity	
CODE - 3		Sala Element of Activity	

Desc	cription of Materia	ils		Fil	I material	results	
Loca	tion to be Used	1-From station47 2-From station47					
MAR	Approval No					Date	
Supp	lier Name						
Test	Requirement			Specif	ication	Clause	1000
Refer	ence Photos	Yes attached / No		Other			
Item	Description		Unit		Quantity	Arrival Date	Note
1	LL& P.L& O.M.	C %	m3	-	5000		
2	Proctor		m3		5000		
3	Classification		m3		5000		
4	Seive analysis		m3		5000		
Comn	nents by:	15.	Comments by:				
to			eet the				
-			APPRO		ATUS	1 million	
Organ	isation Name		Sign		_	Date	A-AWC-R
Contra	ictor	Karnel Shehab	1	Can	1 =	>	
QA/QC	· }	Land	1	4	21	2	
GARB*	SARB** Eng/ Mostafa Negm		C	-	www		
Comme	ent by ER						
Employ Repres	vers entative						

File: MiR - 5000 m3

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Page 1 of 1

INSPECTI REQUES				مرکز الاستقراق المنصوط الاقرو فطرت و المرق ا مودمواوی ا کاروار بیشد الرویوشین	مزارة النقـل	
Contractor Company	United E	gyption Fou	Indation	Design	er Company	SGAC
Issued by	Name	Sign	6	/ Date		Time
Contractor	Mahmoud Shaw	iesh	A	61	1 0.00	

Contractor	Mahmoud Shawlesh	A	6	.11.	20	-7				
Received by		MIR	<u>c</u> 1	a	C3	00	MM	VY.	HH	MM
ER		mun		-						
CODE-1	51 to 521 Station Reference	D1 to 5 Depot Refe			Fo	Kilome	Kp X ter point	XX Note Lonly St		is used
CODE-2			vity							
CODE - 3	Sub Element of Activity					-				

-	cription of Materials		1	Fill material	resu	lts			
Loca	tion to be Used	2-From station4 3-From station4 4-From station4	1-From station476+880 to station 476+980 (-5) 2-From station476+640 to station 476+740 (-4) 3-From station476+000 to station 476+100 (-1.75) 4-From station476+740 to station 476+860 (-4.5) 5-From station476+300 to station 476+540 (-2)						
MAR	Approval No						Date		
Supp	lier Name								
Test	Requirement			Specifica	ition		Clause		
Refer	ence Photos	Yes attached / No		Other					
Item	Description		Unit		Quantity	An	rival Date	Note	
1	CBR		m3		10000				
						-			
	ents by:				nments by:				
Asamj	ale has been taken f	orm fill material by SG he results founded me ted	et the						
Asamı to specifi	ole has been taken f (CEL) lab and t contions and accept	he results founded me	APPROV				Date	A-AWC-F	
Asamı to specifi	ale has been taken f (CEL) lab and t contions and accept sation Name	he results founded me	et the	AL STAT			Date	A-AWC-F	
Asamı to ipecifi Drgani	ale has been taken f (CEL) lab and to contions and accept sation Name ctor	he results founded me ted	APPROV Sign	AL STAT		2	Date	A-AWC-F	
Asamj pecifi Drgani	ale has been taken f (CEL) lab and t contions and accept sation Name ctor	he results founded me ted Kamel Shehab	APPROV Sign	AL STAT		2	Date	A-AWC-F	
Asamj pecifi organi ontra (A/QC ARB*	ale has been taken f (CEL) lab and t contions and accept sation Name ctor	he results founded me ted Kamel Shehab Komal	APPROV Sign	AL STAT		2	Date	A-AWC-F	

File: Mile - 10000 m3



مكتب معامل الإستشارات الهندسية

Company Name	: EGYPTIAN UNITED GROUP
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+300)
Delivery Date	: 01/11/2022
Reporting Date	: 06/11/2022
Reporting No.	: 55
Sample No.	: 24

Dear Gentleman,

Attached here with the Soil Replacement delivered on 01/11/2022

Materials test

- 1. Sieve analysis according to ASTM D-422.
- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- 5. Proctor test according to ASTM D-1557.
- 6. CBR according to ASTM D-1883.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

CEL مكتب معضل الاستشغرات الهلد السلجل المثبح Signature 218-001-037

3 El Malek El Afdal Street Zamalek, Cairo. Tel.& Fax : 27367231 - 27363093



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CEL_

Consulting Engineering Bureau & Laboratories مكتب معامل الإستشارات الهندسية

Project Type of sample Location Delivery Date Reporting Date	: EGYPTIAN UNITED GROUP : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : Soil Replacement (Embankment) : St. (476+300) : 01/11/2022 : 06/11/2022 : 55
Reporting No.	: 55
Sample No.	: 24

Decults of Sieve Analysis	According to ASTIN 2
Results of es	

(Courtes see						
Sieve Size (mm)	Passing %					
	100					
50	88.2					
37.5	81.7					
25						
19	72.7					
	65.3					
9.50 4.75	61.1 41.6 41.2					
			2.36			
			2.00	38.8		
	36.5					
1.18	32.9					
0.600	30.2					
	24.1					
0.300	17.6					
0.150						

On

CEL متتب معلمل الاستشغرات الهليب و الساحا Signature - 1- 377 219-1 و لا خارج منه الالفال - الزمال - المالي ا

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C	EL
Consulting Engineering	Bureau & Laboratories مكتب معامل الإست

MATERIA

Company Name Project Type of sample	: EGYPTIAN UNITED GROUP : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : Soil Replacement (Embankment)
Location	: St. (476+300)
Delivery Date	: 01/11/2022
Reporting Date	: 06/11/2022
Reporting No.	: 55
Sample No.	: 24

<u>Materials finer than 75 µm (no.200) sieve</u> by washing ASTM D-1140.

Test	Results (%)
E Gage 1 Stores	4/10
Percentage of material finer than Sieve Size 75 µM (No.200)	12.3

iont

C. مكتب معلمل الأ 1.11-11 11 اعل الد Signature

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Company Name project Type of sample	: EGYPTIAN UNITED GROUP : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : Soil Replacement (Embankment)
Location	: St. (476+300)
Delivery Date	: 01/11/2022
Reporting Date	: 06/11/2022
Reporting No.	: 55
Sample No.	: 24

Results of liquid limit and plasticity index of soils according to ASTM D-4318

	1201	100,000	1 CINCL
Charling the Test	4.00	Results (%)	
Liquid Limit	30.1	NP	hiny
Plastic Limit	12.0	NP	
Plasticity Index	A BES INH INS.	NP	

CEL معتب معلن الاستيار والجا Signature الساعل الشمالي 219-901-387 LA (James : 2 شرع الله الاختار .. المدار - اللادم

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CEL

Consulting Engineering Bureau & Laboratories مكتب معامل الإستشارات الهندسية

Company Name Project Type of sample Location Delivery Date Reporting Date	: EGYPTIAN UNITED GROUP : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : Soil Replacement (Embankment) : St. (476+300) : 01/11/2022 : 06/11/2022
	: 55
Reporting No. Sample No.	: 24

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits according Projects Specs	
Group Classification	A-1-b	(A-1-a)	(A-1-b)
2.00 mm (No.10).	38.1	Max 50 %	
0.425 mm (No. 40).	30.2	Max 30 %	Max 50 %
0.075 mm (No. 200).	12.3	Max 15 %	Max 15 %
Characteristics of fraction passing 0.4	25 mm (No.40))	
Liquid Limit	NP		
		Service - Service -	11/1-1 2-180H

The test results are (Comply - Not Comply) with specifications limits

CEL مكتب معادل الاستشغرات العلد الساحل الشمال Signature 884-H37 1 Art 18 1 613 1

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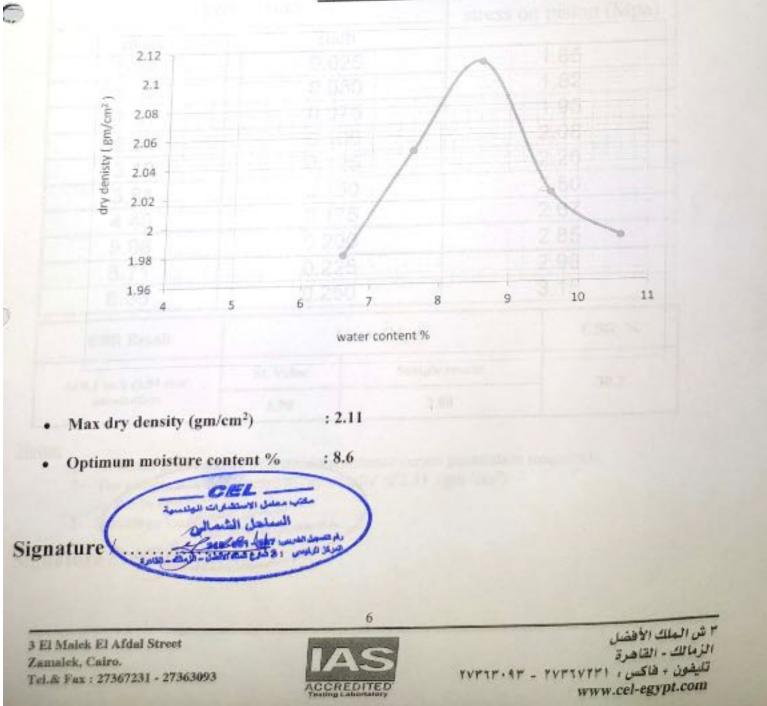
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annany Name	: EGYPTIAN UNITED GROUP
project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+300)
Delivery Date	: 01/11/2022
Reporting Date	: 06/11/2022
Reporting No.	: 55
Sample No.	: 24

<u>Moisture – Density relation of soil</u> <u>Test result (Modified proctor test)</u> <u>ASTM D-1557.</u>



	CEL Consulting Engineering Bureau & Laboratories مكتب معامل الإستشارات الهندسية
Company Name	: EGYPTIAN UNITED GROUP
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+300)
Delivery Date	: 01/11/2022
Reporting Date	: 06/11/2022
Reporting No.	: 55
Sample No.	: 24

Test Results of California	Bearing F	Ratio on	Base Materials
AST	M D 1883	3	

penetration		stress on piston (Mpa)	
mm	Inch	Succe on pieren (« P	
0.64	0.025	1.65	
1.27	0.050	1.82	
1.91	0.075	1.95	
2.54	0.100	2.08	
3.18	0.125	2.26	
3.81	0.150	2.50	
4.45	0.175	2.67	
5.08	0.200	2.85	
5.71	0.225	2.98	
6.35	0.250	3.15	
CBR Result	Stress (Mpa)	CBR %	

CBR Result	St	ress (Mpa)	CBR %
At 0.1 inch (2.54 mm)	St. Value	Sample results	30.2
penetration	6.90	2.08	30.2

tes:

1- Attached graph shows penetration resistance versus penetration magnitude.

2- The sample was compacted to dry density of 2.11 (gm /cm³) at 8.6 % optimum water content.

3- Surcharge load 4.50

gnature

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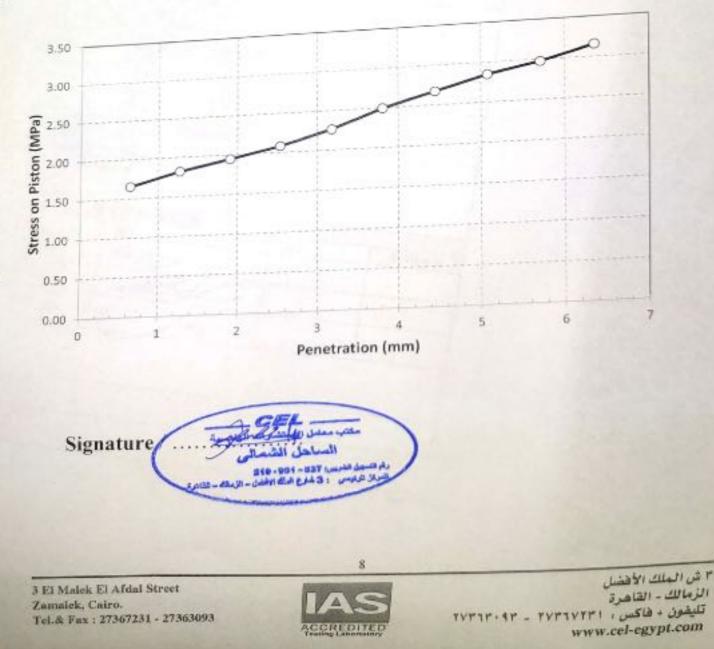
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Load Penetration Curve of CBR Test ASTM D-1883



MATERI NNSPECTI REQUE	ION collect	A	احدو المقرق واروران	مرکز الاستشار تنقرر شار رحیات دکتون میشا	يغيل	11.0.1	121	111	-		
Contractor Company	United Egypt	tion Foundatio	on	Design	ner Co	mpa	ny	SGA			SeAarm
Issued by	Name	Sign MS	-	Date				Time			_
Contractor	Mahmoud Shawish	2		23	. 11.	20	5				_
Received by ER			MIR	-C1	(2	(3	DD	A46.4	77	HH	MN
CODE-1	\$1 to \$21	1					-	_	-		_

120

CODE - 2	Station Reference	D1 to S3 Depot Reference	Kp XXX Note
CODE-3		Work Activity	For Kilometer point only Start Km is used
		Sub Element of Activity	

	scription of M	aterials	Fill material results						_	
Loca	ition to be Us	ed	1-From station4 2-From station4	77+840 76+980	to statio to statio	on 478+000 (on 477+100 ((-4) (-5)			
MAR	Approval No						-		-	_
Supp	lier Name						-	Date		
Test	Requirement				Specifi	cation	-	Clause		
Refer	ence Photos		Yes attached / No	0	Other		-	ciause	_	_
Item	Description				10000	-	_			
1	LL&PL&C			Unit		Quantity	An	rival Date	Note	
2	Proctor			m3	_	5000	-			
3	Classification	n		m3		5000				
4	Seive analys			m3		5000				
Comm	ents by:			m3		5000				
Asampl	le has been tai	ken form	fill material by SG	AC office	Co	mments by:				170
Asampi to	le has been tai (<u>CEL)</u> lab ontions and a	and the	results founded as	AC office	Co	mments by:				
Asampi to j pecific	ontions and a	ccepted	results founded me	AC office	2					
Asampl to (pecific	ontions and an ation Na	and the	results founded me	eet the	2			Date		
Asampl to (pecific	ontions and an ation Na	and the ccepted	results founded me	APPROV Sign	AL STA			Date		A-AWC-F
Asampl	ation Na	and the ccepted	results founded me	APPROV Sign	2			Date		A-AWC-F
Asample pecific Organis ontrac	ation Na	ime Kan	nel Shehab	APPROV Sign	AL STA)	Date		A-AWC-F
Asampl to pecific Organis	ation Na	ime Kan	nel Shehab	APPROV Sign	AL STA)	Date		A-AWC-F

File: MIR - 5000 m3

Page 1 of 1

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SPECTIC REQUES	DN e	adusticuli oduši je jikal Itane j	Anne	BEAG	زن المتصية زن واسترن حاص ا يو الجيوشاني	الطل والعا سال (خيرا،	ر <u>ة النة</u>	1.17	4.	Natra		NA ANA
Contractor Company	U	nited Egyptic	on Fou	ndatio	n	Designer	Comp	any	SGA	c		
ssued by	Name		Sign	41	1	Date			Time			
Contractor	Mahmo	ud Shawiesh		D		23.11	2	23				
Received by ER			10		MIR	CI	C3	DO	MM	99	891	MM
CODE -2 CODE -3		to 521 Reference			D1 to S Depot Refe Work Acti Element o	rence vity	F	or Kiloms	Kp 3 eter pole	OCK Not	e Hart Km	is used
Description of M	aterials				Fill	material res	ults	-				
ocation to be U	sed	1-From stati 2-From stati 3-From stati 4-From stati 5-From stati	ion476+ ion476+ ion477+	+100 to +080 to +840 to	station 4 station 4	76+200 (-2 76+220 (-1) .75)					
IAR Approval N	0			_			_					

Supplier Name Test Requirement Specification Clause Reference Photos Yes attached / No Other Item Description Unit Quantity Arrival Date CBR Note m3 10000 Comments by: Comments by: Asample has been taken form fill material by SGAC office (CEL)

Date

lab and the results founded meet the to specificontions and accepted

Organisation	Name	APPROVAL STATUS	Data	1
Contractor	Kamel Shehab	Kada	Date	A-AWC-R
QA/QC *	Ramel	421	0	
GARB**	Eng/ Mostafa Negm	Cin	4	
Comment by ER				
Employers Representative				

File: Mill - 10000 m3

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Fage 1 of 1



11.4

Consulting Engineeri & Laboratorias مكتب معامل الإستشارات الهندسية

Company Name	: EGYPTIAN UNITED GROUP
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : Soil Replacement (Embage)
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+980)
Delivery Date	: 17/11/2022
Reporting Date	: 23/11/2022
Reporting No.	: 57
Sample No.	: 26

Dear Gentleman,

Attached here with the Soil Replacement delivered on 17/11/2022

Materials test

- 1. Sieve analysis according to ASTM D-422.
- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- 5. Proctor test according to ASTM D-1557.
- 6. CBR according to ASTM D-1883.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

GEL مكتب معامل الاستقدارات الهلد السلطل الشمال Signature / الزمالك - تقادم

3 El Malek El Afdal Street Zamalek, Cairo. Tel.& Fax: 27367231 - 27363093



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REL

Company Name	: EGYPTIAN UNITED GROUP
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+980)
Delivery Date	: 17/11/2022
Reporting Date	: 23/11/2022
Reporting No.	: 57
Sample No.	: 26

Results of Sieve Analysis According to ASTM D-422.

Sieve Size (mm)	Passing %
50	100
37.5	95.1
25	86.3
19	76.2
12.50	71.4
9.50	63.2
4.75	45.8
2.36	43.3
2.00	39.7
1.18	34.1
0.600	32.5
0.425	31.2
0.300	25.1
0.150	18.4

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Company Name Project Type of sample	: EGYPTIAN UNITED GROUP : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : Soil Replacement (Embankment)
Location	: St. (476+980)
Delivery Date	: 17/11/2022
Reporting Date	: 23/11/2022
Reporting No.	: 57
Sample No.	: 26

Materials finer than 75 µm (no.200) sieve by washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 µM (No.200)	12.4

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Company Name	: EGYPTIAN UNITED GROUP
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+980)
Delivery Date	: 17/11/2022
Reporting Date	: 23/11/2022
Reporting No.	: 57
Sample No.	: 26

Results of liquid limit and plasti	city index
of soils according to ASTM I)-4318

Test	A-1-0	Results (%)
Liquid Limit	3 3	NP
Plastic Limit	114	NP
Plasticity Index		NP



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	A V	1
Company Name Project Type of sample Location	د المعادل الاستشارات الهندسية Consulting Engineering Bureeu & Laboratories عكتب معادل الاستشارات الهندسية EGYPTIAN UNITED GROUP : Electric Express Train, from Al Ain Sokhna to Marsa Ma : Soil Replacement (Embankment) : St. (476+980)	
Delivery Date	: 17/11/2022	
Reporting Date	: 23/11/2022	
Reporting No.	: 57	
Sample No.	: 26	

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits according Projects Specs		
Group Classification	A-1-b	(A-1-a)	(A-1-b)	
2.00 mm (No.10).	39.7	Max 50 %	(
0.425 mm (No. 40).	31.2	Max 30 %		
0.075 mm (No. 200).	12.4	Max 15 %	Max 50 % Max 15 %	

Characteristics of fraction passing 0.425 mm (No.40)

Liquid Limit	NP		
Plasticity index	NP	Max 6 %	Max 6 %

The test results are (Comply O Not Comply) with specifications limits مقليب سعشق الإستشقرات الساحل الش Signature a for UNIT .

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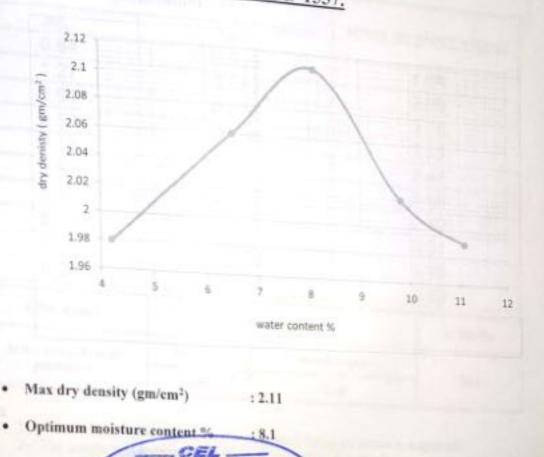
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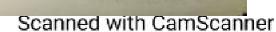
Moisture – Density relation of soil Test result (Modified proctor test) <u>ASTM D-1557</u>.



مكتب معامل الإستشارات الو المداهل الشعالي

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٢ ش الملك الأفضل

الزمالك - القاهرة

company Name	Consulting Engineering Bureau & Laboratories عيت معامل الإستشارات الهناسية : EGYPTIAN UNITED GROUP
project	: Electric Express Train
Type of sample	 Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Soil Replacement (Embankment) St. (476+080)
Location	: St. (476+980)
Delivery Date	: 17/11/2022
Reporting Date	: 23/11/2022
Reporting No.	: 57
Sample No.	: 26

Test Results of California Bearing Ratio on Base Materials

		1003				
pe	penetration					
mm	Inc	h str	ess on piston (Mpa)			
0.64	0.02		1.00			
1.27	0.05		1.89			
1.91	0.07		2.08			
2.54	0.10		2.18			
3.18	0.12		2.35			
3.81	0.15		2.44			
4.45	0.17		2.58			
5.08	0.200		2.80			
5.71			3.01			
6.35	0.225		3.18			
0.00	0.250		3.29			
CBR Result	St	ress (Mpa)	CBR %			
At 0.1 inch (2.54 mm)	St. Value	Sample results				
penetration	1.00		34.1			

ASTM D 1883

2.35

Notes:

0

1- Attached graph shows penetration resistance versus penetration magnitude.

2- The sample was compacted to dry density of 2.11 (gm /cm3)

الساعل

6.90

at 8.1 % optimum Gatter content. 3- Surpharge Read 4:50 ل الاست

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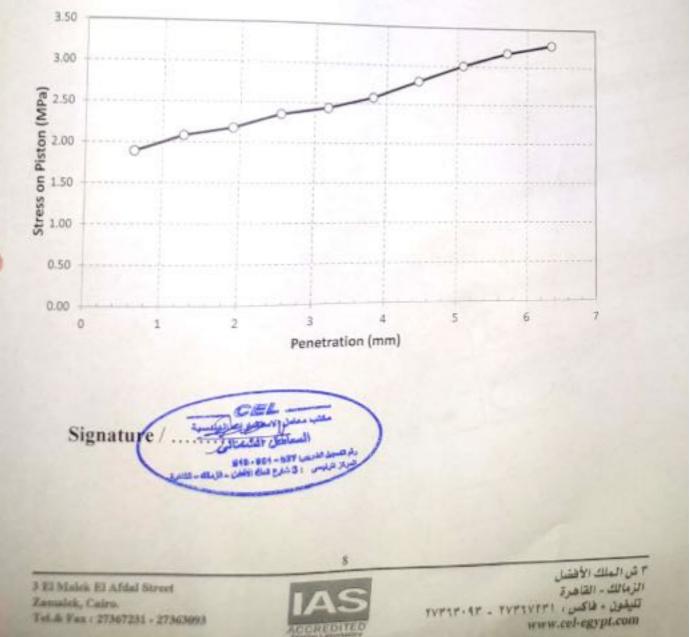
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Company Name project Type of sample Location Delivery Date Reporting Date	Consulting Engineering Bureau & Laboratories المعادل الاستقادات الهندية EGYPTIAN UNITED GROUP Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Soil Replacement (Embankment) St. (476+980) 17/11/2022 23/11/2022
Reporting No.	: 57
Sample No.	: 26

Load Penetration Curve of CBR Test ASTM D-1883



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MATERIAL		Statu	مرکز الاستشارات المندسیة اعتار و ضارحدو ضارق (خراد بوتورو)	وزارة النصل	
REQUEST	(GARE)		pulopy saw (pS)	B\$	SVSTRA EREMANEN
		1000			

Contractor Company	United Egypt	tion Foundation		Designer Company			SGAC				
Issued by	Name	Sign	P.	Date				Time			
Contractor	Mahmoud Shawish	\$	F	6	. 12	. 20	27				
Received by ER			MIR	C1		6	00	MM	YY	HH	MM

CODE-1	51 to 521 Station Reference	D1 to 53 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used			
CODE 2		Work Activity				
CODE=3		Sub Element of Activity				

Description of Materials		Fill material results								
Location to be Used		1-From station477+100 to station 477+220 (-5) 2-From station476+340 to station 476+540 (-2)								
MAR	Approval I	No						Date		
Supp	lier Name									
Test	Requireme	nt			Spe	cification		Clause		
Refer	ence Phot	os	Yes attached / No		Oth	ier				
item	Descripti	ion		Uni	t	Quanti	tv	Arrival Date	Note	
1	LL&P.L	& O.M.C	%	m3	1	5000	-		and the second	
2	Proctor			m3		5000				
3	Classifica	ation		m3		5000				
	Seive and	alysis		m3		5000				
com	ments by:		215 6	Comments by:					-	
to specif	(CEL) icontions a	lab and th nd accepte		APPRO	OVAL	STATUS				
Organ	hisation	Name		Sig	Sign			Date	_	A-AWC-R
Contr	actor	K	amel Shehab	K	0m	17				
an/ac . R cond		4	1	tal	1	2				
GARB** Eng/ Mostafa Negm		(tun						
Comm	ient by ER									
Emplo	overs sentative			1						

File: Milk - 5000 m3

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Page 1 of 1

ISPECTION REQUES			ىزان المنصية قراد و قفرق مرابق) مد الجوشمي	النظل و الد (غيرا		ار <u>د انن</u>	1	Le	VITA		-
Contractor	United Egypti	ion Foundatio	n	Desig	mer C	ompa	ny	SGAG			
issued by	Name	Sign A	1	Date	-			Time			
Contractor	Mahmoud Shawiesh	T		6.	12	20	20				
Received by ER		V	MIR	Cl	62	CJ	DD	MM	44	нн	MM

C.N.			
CODE-1	51 to 521 Station Reference	D1 to 53 Depot Reference	Kp XXX Note For Kilometer point only Start Km is used
CODE - 2	and the first sector	Work Activity	
CODE - 3		Sub Element of Activity	
Contra - A			

Descri	iption of Mat	terials				Fil	l material re	sul	Its			
0 Locati	ion to be Use	d	1-From station477 2-From station477 3-From station476	7+100 t	to sta	tion	477+220 (-	5)				
MAR	Approval No	0.0	1						Date			
Suppl	ier Name											
Test R	Requirement				Spe	cifica	tion		Clause			
Refer	ence Photos		Yes attached / No		Oth	er			1.114			
Item	Descriptio	n		Unit			and the second se		rrival Date	Note	Note	
1	CBR			m3	-		10000	-				
-								T				
Com	nents by:					Cor	nments by:	-	0.00			
to	ple has been <u>{CEL}</u> I: ficontions ar	ab and t	orm fill material by S0 he results founded me ted	GAC officer the	ice							
				APPR	OVAL	STA	TUS		1-0-1-1	- 11	10000	
	nisation	Name		Sig	n l				Date		A-AWC-R	
Contr	actor		Kamel Shehab		Xa	12	0					
QA/Q	C *	1.10	Ramel		-	4	24		>			
GARB	**	E	ng/ Mostafa Negm		(my					
Comr	ment by ER											
Emple Repre	oyers esentative											

File: MIR - 10000 m3

Page 1 of 1



Company Name Project	: EGYPTIAN UNITED GROUP : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample	: Soil Replacement (Embankment)
Location	: St. (476+100)
Delivery Date	: 30/11/2022
Reporting Date	: 06/12/2022
Reporting No.	: 59
Sample No.	: 28



Dear Gentleman,

Attached here with the Soil Replacement delivered on 30/11/2022

Materials test

- 1. Sieve analysis according to ASTM D-422.
- 2. Material finer than sieve No. 200 according to ASTM D-1140.
- 3. Liquid limits and plasticity index of soil according to ASTM D-4318.
- 4. Soil classification according to Project Specs.
- 5. Proctor test according to ASTM D-1557.
- 6. CBR according to ASTM D-1883.

Note: The sample was brought by the client to our laboratory and the laboratory is not responsible for the way it is taken

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	المعتمرة محمد المحمد المحم
Company Name Project Type of sample Location Delivery Date Reporting Date Reporting No. Sample No.	CEEL Consulting Engineering Bureau & Laboratories کتب عمامل الاستثارات الهندسيد EGYPTIAN UNITED GROUP Electric Express Train, from Al Ain Sokhna to Marsa Matrouh Soil Replacement (Embankment) St. (476+100) 230/11/2022 298

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Results of Sieve Analysis According to ASTM D-422.

Sieve Size	S GED JOINT
(mm)	Passing %
50	100
37.5	
25	95.8
19	84.1
	74.1
12.50	65.2
9.50	57.1
4.75	48.2
2.36	45.5
2.00	43.1
1.18	38.2
0.600	34.3
0.425	31.6
0.300	27.5
0.150	19.1

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Company Name	: EGYPTIAN UNITED GROUP
Project	: Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
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Location	: St. (476+100)
Delivery Date	: 30/11/2022
Reporting Date	: 06/12/2022
Reporting No.	: 59
Sample No.	: 28

Materials finer than 75 µm (no.200) sieve by washing ASTM D-1140.

Test	Results (%)
Percentage of material finer than Sieve Size 75 µM (No.200)	13.6

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Company Name	: EGYPTIAN UNITED GROUP
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Reporting Date	: 06/12/2022
Reporting No.	: 59
Sample No.	: 28

Results of liquid limit and plasticity index of soils according to ASTM D-4318

Test	Results (%)
.iquid Limit	NP
Plastic Limit	NP
Plasticity Index	NP



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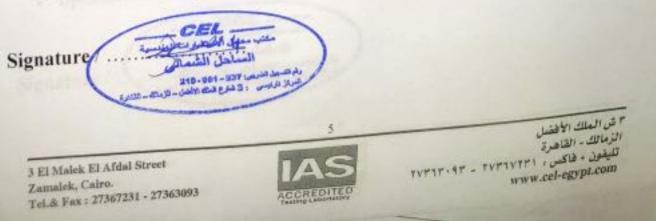
Company Name	: EGYPTIAN UNITED GROUP
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Reporting No.	: 59
Sample No.	: 28

Soil Classification According to Project Specs (Embankment)

Results (%)	Limits according Projects Specs	
A-1-b	(A-1-a)	(A-1-b)
43.1	Max 50 %	
31.6	Max 30 %	Max 50 %
13.6	Max 15 %	Max 15 %
	(%) A-1-b 43.1 31.6	(%) Project A-1-b (A-1-a) 43.1 Max 50 % 31.6 Max 30 %

		Max 6 %
NP	Max 6 %	(rins c
	NP	NP Max 6 %

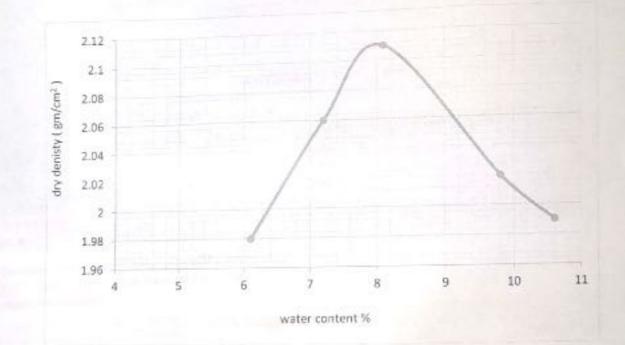
The test results are (Comply - D Not Comply) with specifications limits





Company Name project Type of sample	: EGYPTIAN UNITED GROUP : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh : Soil Replacement (Embankment)
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<u>Moisture – Density relation of soil</u> <u>Test result (Modified proctor test)</u> <u>ASTM D-1557.</u>



Max dry density (gm/cm²) : 2.11

Optimum moisture content % : 8.1

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