

السيد المهندس / رئيس قطاع التنفيذ والمناطق

تحية طيبة.. وبعد،،

بالإحالة إلى مشروع القطار الكهربائي فائق السرعة (العلمين - فوكة)
نتشرف بأن نرفق لسيادتكم طيه المقايسة المعدلة بعد اعتماد لجنة المفاوضات للقطاعات
الآتية بتاريخ : ١٨ / ١٢ / ٢٠٢٣

مسلسل	اسم الشركة	بداية القطاع (كم)	نهاية القطاع (كم)	اتجاه
1	ابجى كونتراك (لصاحبها زكريا جابر)	499+500	500+000	الاسكندرية

برجاء من سيادتكم التفضل بالأحاطه والتوجيه بالازم

وتفضلوا بقبول فائق الاحترام والتقدير،،

رئيس الإدارة المركزية

المنطقة الخامسة - غرب الدلتا

عميد مهندس /

" هاني محمد محمود طه "



شركة ايجي كونتراك
لإنشاء الطرق
EGCONTRACT
11000 King's Road, Suite 1000, Los Angeles, CA 90048

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment -(Upper Embankment)
Location : St. (499+500) : (500+000)
Delivery Date : 25/05/2023
Reporting Date : 01/06/2023
Reporting No. : 09
Sample No. : 09

Dear Gentleman,

Attached here with the Soil Embankment -(Upper Embankment)
delivered on 25/05/2023

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

Signature /


Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment -(Upper Embankment)
Location : St. (499+500) : (500+000)
Delivery Date : 25/05/2023
Reporting Date : 01/06/2023
Reporting No. : 09
Sample No. : 09

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Passing %
50	100
37.5	96.5
25	82.4
19	76.7
12.50	65.6
9.50	54.4
4.75	48.9
2.36	43.9
2.00	40.6
1.18	38.0
0.600	33.9
0.425	30.7
0.300	24.0
0.150	16.0

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مكتب معامل الاستشارات الهندسية
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رام حسن طه
3 شارع هبة الأمل - الزمالك - القاهرة
210-591-637
011-27367231

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment -(Upper Embankment)
Location : St. (499+500) : (500+000)
Delivery Date : 25/05/2023
Reporting Date : 01/06/2023
Reporting No. : 09
Sample No. : 09

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

Test	Results (%)
Percentage of material finer than Sieve Size 75 μ m (No.200)	13.9

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شارع الملك فيصل - 10 - 11 - 12

3

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



3 ش الملك الأفضل
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تليفون + فاكس : ٢٧٣٦٧٢٣١ - ٢٧٣٦٣٠٩٣
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Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment -(Upper Embankment)
Location : St. (499+500) : (500+000)
Delivery Date : 25/05/2023
Reporting Date : 01/06/2023
Reporting No. : 09
Sample No. : 09

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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رقم الهاتف: 27367231 - 27363093
فيس 31 شارع الملك الأفدال - القاهرة

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment -(Upper Embankment)
Location : St. (499+500) : (500+000)
Delivery Date : 25/05/2023
Reporting Date : 01/06/2023
Reporting No. : 09
Sample No. : 09

Soil Classification According to Project Specs (Embankment)

TEST	Results (%)	Limits according Projects Specs	
		(A-1-a)	(A-1-b)
• Group Classification	(A-1-b)		
2.00 mm (No.10).	40.6	Max 50 %	-----
0.425 mm (No. 40).	30.7	Max 30 %	Max 50 %
0.075 mm (No. 200).	13.9	Max 15 %	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 - □ Not Comply) with specifications limits

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المهندس الشيمس
219-091-537
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5

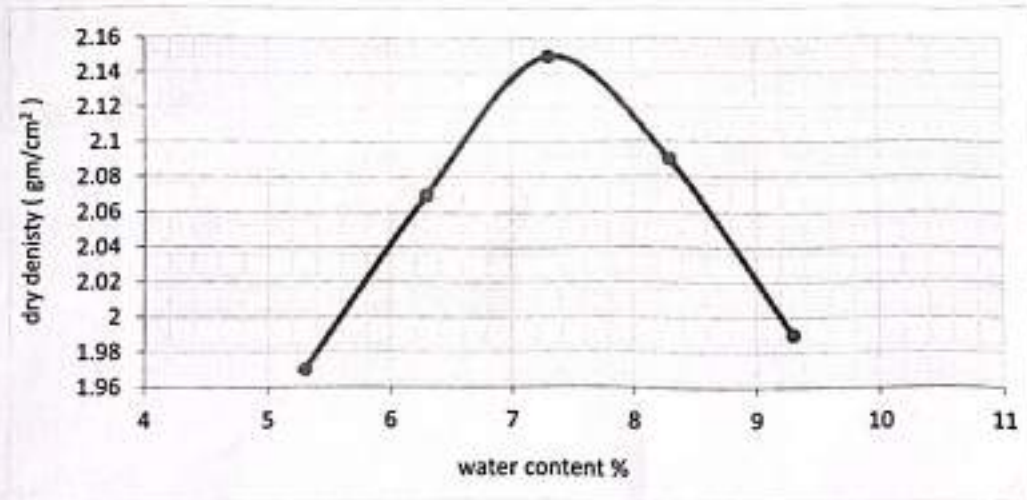
3 El Malek El Afdal Street
Zamalek, Cairo.
Tel.& Fax : 27367231 - 27363093



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www.cel-egypt.com

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment -(Upper Embankment)
Location : St. (499+500) : (500+000)
Delivery Date : 25/05/2023
Reporting Date : 01/06/2023
Reporting No. : 09
Sample No. : 09

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



- Max dry density (gm/cm³) : 2.15
- Optimum moisture content % : 7.3

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Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment - (Upper Embankment)
Location : St. (499+500) : (500+000)
Delivery Date : 01/06/2023
Reporting Date : 06/06/2023
Reporting No. : 10
Sample No. : 10

Dear Gentleman,

Attached here with the Soil Embankment - (Upper Embankment)
delivered on 01/06/2023

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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Zamalek, Cairo.
Tel.& Fax : 27367231 - 27363093



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www.cel-egypt.com

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment - (Upper Embankment)
Location : St. (499+500) : (500+000)
Delivery Date : 01/06/2023
Reporting Date : 06/06/2023
Reporting No. : 10
Sample No. : 10

RESULTS OF SIEVE ANALYSIS According to ASTM D-422.

Sieve Size (mm)	Passing %
50	100
37.5	93.6
25	85.1
19	72.1
12.50	59.3
9.50	48.2
4.75	36.4
2.36	35.9
2.00	33.7
1.18	30.7
0.600	29.8
0.425	27.1
0.300	20.3
0.150	15.2

Signature 
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المعامل الشمالي
رام همدان طريق 537 - 539
شارع قويس : 3 شارع الملك الراحل - الملك - القاهرة

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment - (Upper Embankment)
Location : St. (499+500) : (500+000)
Delivery Date : 01/06/2023
Reporting Date : 06/06/2023
Reporting No. : 10
Sample No. : 10

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

Test	Results (%)
Percentage of material finer than Sieve Size 75 μ m (No.200)	12.5

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ر.م. محمد الشحات 207 - 208 - 209
ش.م. محمد الشحات - القاهرة - مصر

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment - (Upper Embankment)
Location : St. (499+500) : (500+000)
Delivery Date : 01/06/2023
Reporting Date : 06/06/2023
Reporting No. : 10
Sample No. : 10

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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رقم الترخيص: ٢٠١٩ - ١١١١ - ١١١١
عنوان: ٣ شارع الملك الأفندي - القاهرة

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment - (Upper Embankment)
Location : St. (499+500) : (500+000)
Delivery Date : 01/06/2023
Reporting Date : 06/06/2023
Reporting No. : 10
Sample No. : 10

Soil Classification According to Project Specs (Embankment)

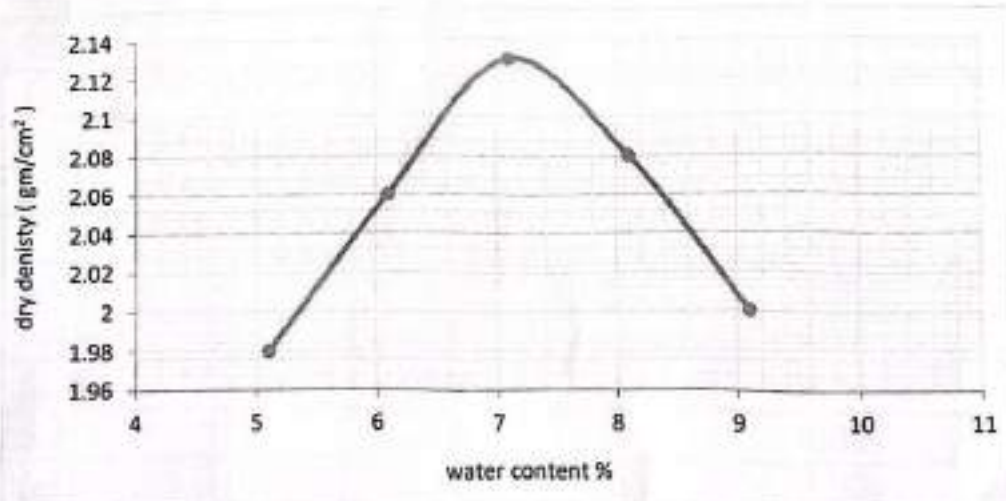
TEST	Results (%)	Limits according Projects Specs	
• Group Classification	(A-1-a)	(A-1-a)	(A-1-b)
2.00 mm (No.10).	33.7	Max 50 %	-----
0.425 mm (No. 40).	27.1	Max 30 %	Max 50 %
0.075 mm (No. 200).	12.5	Max 15 %	Max 15 %
Characteristics of fraction passing 0.425 mm (No.40)			
Liquid Limit	NP	-----	-----
Plasticity index	NP	Max 6 %	Max 6 %

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

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Signature / **المهندس / المهندس**
بمصر - 11511 - 11512
شارع الملك الأفطال - القاهرة

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment - (Upper Embankment)
Location : St. (499+500) : (500+000)
Delivery Date : 01/06/2023
Reporting Date : 06/06/2023
Reporting No. : 10
Sample No. : 10

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



- Max dry density (gm/cm³) : 2.13
- Optimum moisture content % : 7.1

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الاستشاريون: ...
رام محمد محمد 027 - 009 - 219
مركز القوي : شارع الملك الأفدال - الزمالك - القاهرة

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment - (Upper Embankment)
Location : St. (499+500) : (500+000)
Delivery Date : 01/06/2023
Reporting Date : 06/06/2023
Reporting No. : 10
Sample No. : 10

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

penetration		stress on piston (Mpa)
mm	Inch	
0.64	0.025	2.64
1.27	0.050	2.84
1.91	0.075	3.04
2.54	0.100	3.37
3.18	0.125	3.80
3.81	0.150	4.06
4.45	0.175	4.31
5.08	0.200	4.56
5.71	0.225	4.82
6.35	0.250	5.07

CBR Result	Stress (Mpa)		CBR %
At 0.1 inch (2.54 mm) penetration	St. Value	Sample results	48.9
	6.90	3.37	

Notes :

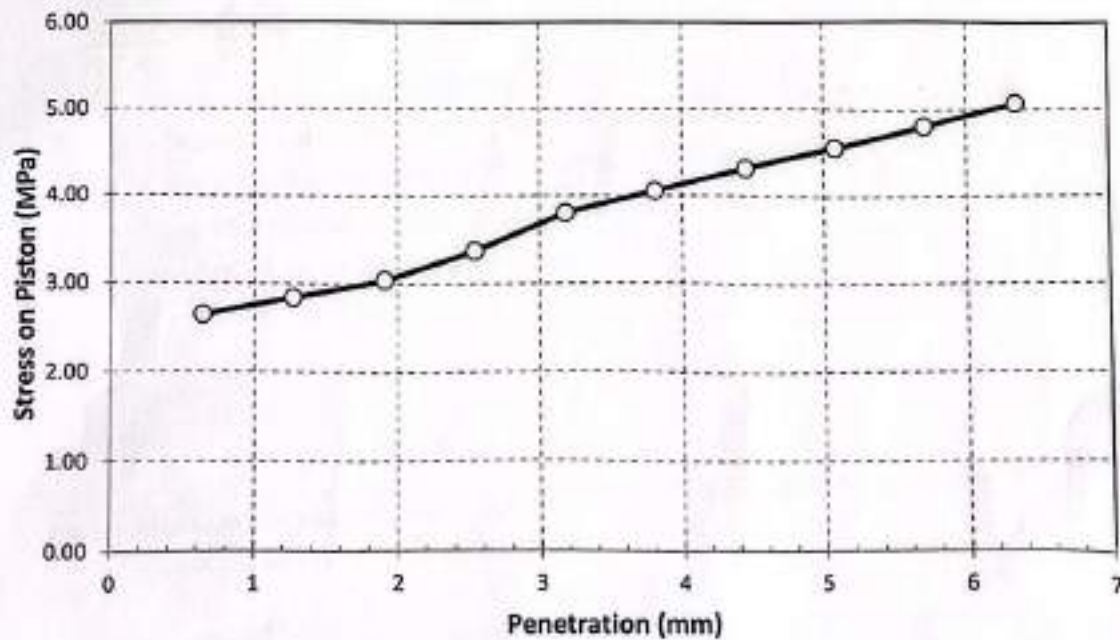
- 1- Attached graph shows penetration resistance versus penetration magnitude.
- 2- The sample was compacted to dry density of 2.13 (gm /cm³) at 7.1 % optimum water content.
- 3- Surcharge load 4.50 Kg.

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البريد الإلكتروني: cel@cel-egypt.com
رقم الهاتف: ٢٧٣٦٢٣١ - ٢٧٣٦٣٩٣
شركة المالك - القاهرة

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Soil Embankment - (Upper Embankment)
Location : St. (499+500) : (500+000)
Delivery Date : 01/06/2023
Reporting Date : 06/06/2023
Reporting No. : 10
Sample No. : 10

Load Penetration Curve of CBR Test
ASTM D-1883



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Signature: *[Signature]*
ر.م. محمد عبد الحليم
3 شارع الملك فيصل - الزمالك - القاهرة
27367231 - 27363093

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Prepared Subgrade
Location : St. (500+499) : (500+000)
Delivery Date : 18/07/2023
Reporting Date : 28/07/2023
Reporting No. : 117
Sample No. : 07

Dear Gentleman,

Attached here with the Prepared Subgrade delivered on 18/07/2023

Materials test

1. Sieve analysis according to ASTM D-422.
2. Material finer than sieve No. 200 according ASTM D-1140.
3. Liquid limits and plasticity index of soil according to ASTM D-4318.
4. Proctor test according to ASTM D-1557.
5. CBR according to ASTM D-1883
6. Los Anglos according to ASTM C-131.

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

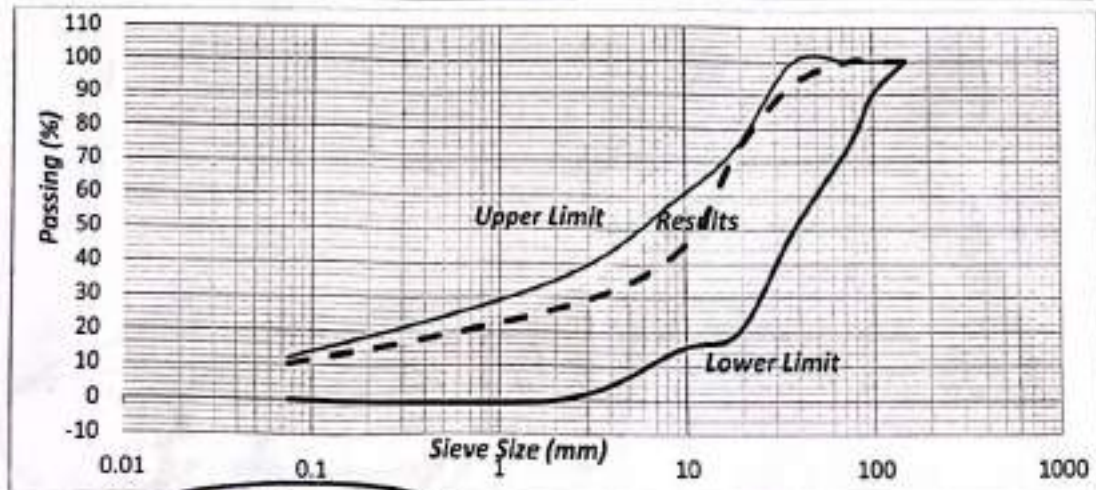
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مكتب معامل الاستشارات الهندسية
الساحل الشمالي
د. محمد عبد الله
210-090-090
مركز فاس 13 شارع كاترين - هليوبوليس

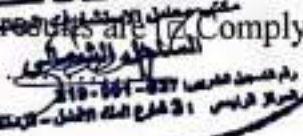
Signature /

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Prepared Subgrade
Location : St. (500+499) : (500+000)
Delivery Date : 18/07/2023
Reporting Date : 28/07/2023
Reporting No. : 117
Sample No. : 07

Results of sieve analysis according to ASTM D-422.

Sieve Size (mm)	Passing %	Job specification limits (ASTM D-422)	
		Min.	Max.
125	100	100	100
100	100	90	100
75	100	75	100
50	100	--	--
37.5	93.2	50	100
25	80.8	--	100
19	73.5	20	75
12.5	58.4	--	--
9.5	44.3	15	60
4.75	28.1	--	--
2.00	26.5	0	35
0.425	17.3	0	--
0.075	10.2	0	12



The test results are ☒ Comply - ☐ Not Comply) with specifications limits.
Signature / 

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Prepared Subgrade
Location : St. (500+499) : (500+000)
Delivery Date : 18/07/2023
Reporting Date : 28/07/2023
Reporting No. : 117
Sample No. : 07

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

Test	Results (%)
Percentage of material finer than Sieve Size 75 μ m (No.200)	10.2

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Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Prepared Subgrade
Location : St. (500+499) : (500+000)
Delivery Date : 18/07/2023
Reporting Date : 28/07/2023
Reporting No. : 117
Sample No. : 07

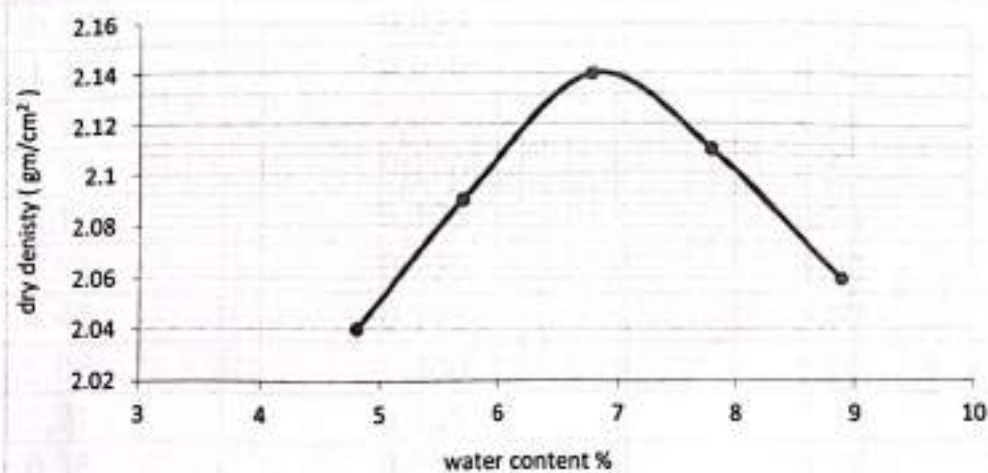
Results of liquid limit and plasticity index
of soils according to ASTM D-4318

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

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رقم تسجيل المهندس : 27367231 - 27363093
شعرا القامس : شارع الملك الأفدال - الزمالة - القاهرة

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Prepared Subgrade
Location : St. (500+499) : (500+000)
Delivery Date : 18/07/2023
Reporting Date : 28/07/2023
Reporting No. : 117
Sample No. : 07

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



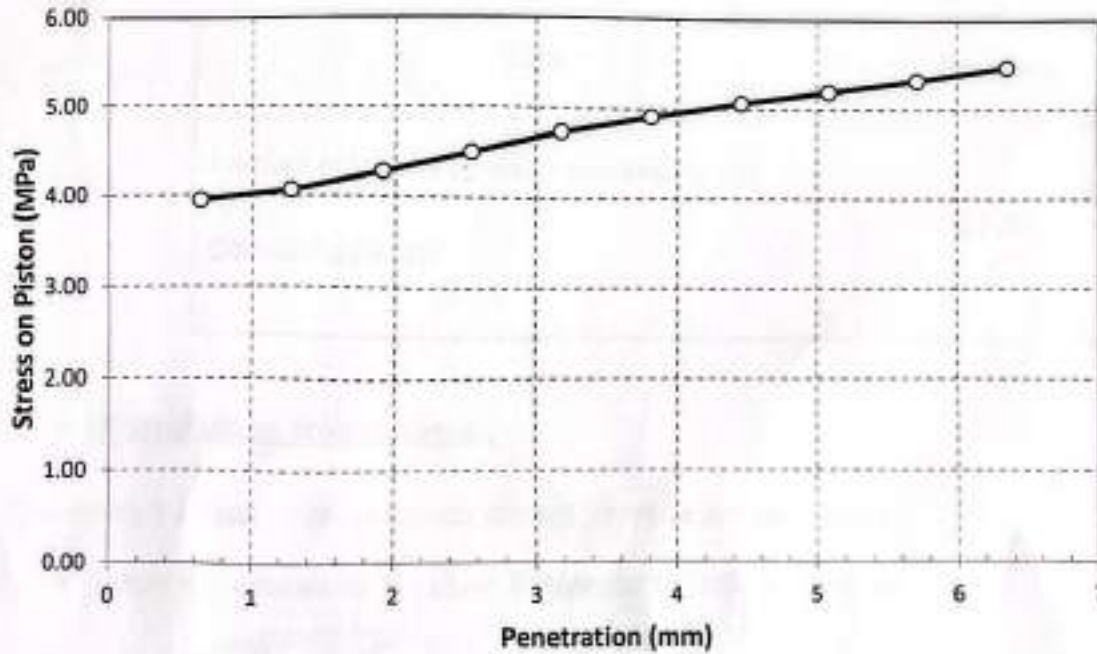
- Max dry density (gm/cm³) : 2.14
- Optimum moisture content % : 6.8

Signature /

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الهندسة المدنية
رام الله - فلسطين
218-094 - 827
شماره القايمة : 3 شارع الملك ابيدا - الزمالة - القاهرة

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Prepared Subgrade
Location : St. (500+499) : (500+000)
Delivery Date : 18/07/2023
Reporting Date : 28/07/2023
Reporting No. : 117
Sample No. : 07

Load Penetration Curve of CBR Test
ASTM D-1883



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www.cel-egypt.com

Company:

EG Contrack

Project : Electric express train.
Delivery Date : 17/10/2023
Report Date : 22/10/2023
Sample Id : Prepared subgrade sample 4
Type : Coarse Aggregate
Source : Site
Report No. : 04

**RESISTANCE TO DEGRADATION
OF SMALL SIZE AGGREGATE BY ABRASION
AND IMPACT IN LOS ANGELES MACHINE
ASTM C 131**

Test	Results
Amount of loss by abrasion and impact (%) Coarse Aggregate	27.9

- According to project specs :

The amount of loss by abrasion and impact for moderate weathering:

- Shall not exceed 40 % (when Subjected to 500 revolutions)

The Test Results is ☒ **Comply** - ☐ **Not Comply** with Spec. Limits

Signature /


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الاختبارات المعملية
رئيس المختبر
219 - 237
237 - 219

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Sub-Ballast
Location : St. (499+500) : (500+000)
Delivery Date : 02/08/2023
Reporting Date : 12/08/2023
Reporting No. : 119
Sample No. : 02

Dear Gentleman,

Attached here with the Sub-Ballast delivered on 02/08/2023

Materials test

1. Sieve analysis according to ASTM D-422.
2. Material finer than sieve No. 200 according ASTM D-1140.
3. Proctor test according to ASTM D-1557.
4. Los Anglos according to ASTM C-131.
5. Specific Gravity & Absorption according to ASTM C-127 & D 6473.

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

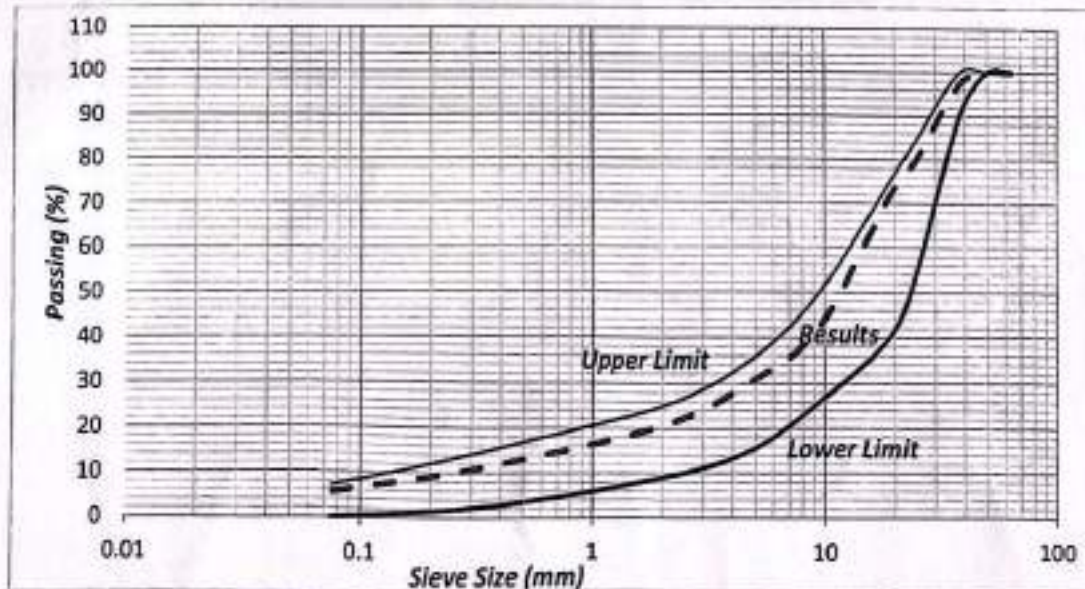
Signature /



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Sub-Ballast
Location : St. (499+500) : (500+000)
Delivery Date : 02/08/2023
Reporting Date : 12/08/2023
Reporting No. : 119
Sample No. : 02

Results of sieve analysis according to ASTM D-422.

Sieve Size (mm)	Passing %	Job specification limits (ASTM D-422)	
		Min.	Max.
63.5	100	100	100
50	100	100	100
38	97.3	90	100
25	80.5	55	85
19	71.7	40	75
12.5	52.3	--	--
9.5	42.4	26	50
4.75	30.2	15	35
2.00	20.6	9	25
0.425	12.3	3	16
0.075	5.5	0	7



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

Signature /

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Sub-Ballast
Location : St. (499+500) : (500+000)
Delivery Date : 02/08/2023
Reporting Date : 12/08/2023
Reporting No. : 119
Sample No. : 02

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

Test	Results (%)
Percentage of material finer than Sieve Size 75 μ m (No.200)	5.5

Signature /



3

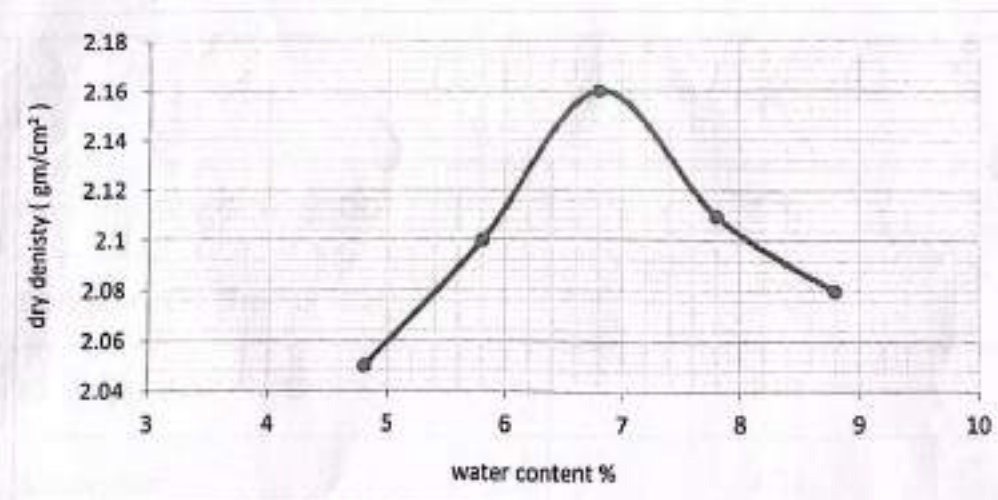
3 El Malek El Afdal Street
Zamalek, Cairo.
Tel. & Fax : 27367231 - 27363093



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www.cel-egypt.com

Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Sub-Ballast
Location : St. (499+500) : (500+000)
Delivery Date : 02/08/2023
Reporting Date : 12/08/2023
Reporting No. : 119
Sample No. : 02

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



- Max dry density (gm/cm³) : 2.16
- Optimum moisture content % : 6.3

Signature /



Company Name : EG CONTRACK
Project : Electric Express Train, from Al Ain Sokhna to Marsa Matrouh
Type of sample : Sub-Ballast
Location : St. (499+500) : (500+000)
Delivery Date : 02/08/2023
Reporting Date : 12/08/2023
Reporting No. : 119
Sample No. : 02

Results of Specific Gravity and Absorption
of Course Aggregate
ASTM C127 & D 6473

Test	Results
Bulk Specific Gravity (OD)	2.52
Bulk Specific Gravity (SSD)	2.63
Apparent Specific Gravity.	2.82
Absorption %	4.21

Note:

- (OD) Refer to Oven Dry.
- (SSD) Refer to Saturated Surface Dry.

Signature /


Company:

EG Contrack

Project : Electric express train.
Delivery Date : 28/10/2023
Report Date : 06/11/2023
Sample Id : Sub Ballast sample 3
Type : Coarse Aggregate
Source : Site
Report No. : 03

RESISTANCE TO DEGRADATION
OF SMALL SIZE AGGREGATE BY ABRASION
AND IMPACT IN LOS ANGELES MACHINE
ASTM C 131

Test	Results
Amount of loss by abrasion and impact (%) Coarse Aggregate	25.8

- According to project specs :

The amount of loss by abrasion and impact for moderate weathering:

- Shall not exceed 30 % (when Subjected to 500 revolutions)

The Test Results ☒ Comply

☐ Not Comply) with Spec. Limits

Signature