

## TEST REPORT OF THE AGGREGATE IMPACT VALUE

CLIENT	DESERT DIAMOND		
CONTRACTOR	M/s. DESERT DIAMOND TRADING CO.		
PROJECT	AGGREGATES SUPPLY	SHEET NO.	144
MATERIAL	AGG. 20mm / GABBRO	Sample Date	08/09/2013
SAMPLED BY	LAB TECHNICIAN	Testing Date	14/09/2013
SOURCE	FUJAIRA (UAE)	Reporting Date	15/09/2013
SAMPLE ID NO.	17781	TLC NO	16976

### TESTED TO BS 812 : Part 112 : 1990

TEST	RESULT OBTAINED (%)
AGGREGATE IMPACT VALUE	8.4 %

QCS 2010 Limits : 25% Maximum for Coarse Aggregates

#### REMARKS :

- Material Sampled & Delivered By : LAB TECHNICIAN
- Sampling Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

MAHMOUD T. ALI  
LABORATORY MANAGER

مختبرات التيسير  
Teyseer Laboratories  
تليفون: 44621254 ص.ب. 1556 الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar



LB-069

Doc. No. F239 , Rev. 01 , 15<sup>th</sup> June, 2012

## TEST REPORT OF THE BULK DENSITY OF AGGREGATES

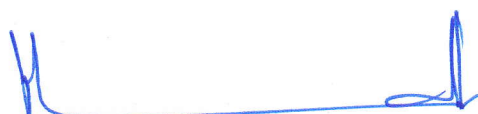
Client	DESERT DIAMOND		
Contractor	M/S. DESERT DIAMOND TRADING CO.		
Project	AGGREGATES SUPPLY	SHEET NO.	135
Material	AGG. 20MM / GABBRO	Sample Date	08/09/2013
Sampled by	LAB TECHNICIAN	Testing Date	12/09/2013
Source	FUJAIRA (UAE)	Reporting Date	15/09/2013
Sample ID. No.	17781	TLC NO	16974

### TESTED TO ASTM C 29/C 29M – 97 PROCEDURE - RODDING

Test No.		1	2
G = Wt. of Aggregates + measure	kg	23.765	23.805
T = Wt. of the measure only	kg	6.555	6.555
V = Volume of cylindrical measure	m <sup>3</sup>	0.01	0.01
M = Bulk density of the aggregates, (G – T) / V	kg/m <sup>3</sup>	1721	1725
Average bulk density of the aggregates	kg/m <sup>3</sup>	1723 kg/m <sup>3</sup>	

#### REMARKS :

- Material Sampled & Delivered By : LAB TECHNICIAN
- Sampling Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

  
MAHMOUD T. ALI  
LABORATORY MANAGER  
مختبرات التيسير  
Teyseer Laboratories  
تليفون: ٤٤٦٢١٢٥٤ ص.ب. ١٥٥٦ الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar

Page 1 of 1

Doc. No. F170A , Rev. 01, 11<sup>th</sup> of September, 2011

## TEST REPORT OF THE MATERIAL FINER THEN 75 UM SIEVE

Client	DESERT DIAMOND		
Contractor	M/s. DESERT DIAMOND TRADING CO.		
Project	GABBRO SUPPLY	SHEET NO.	144
Material	AGG. 20mm / GABBRO	Sample Date	08/09/2013
Sampled by	LAB TECHNICIAN	Testing Date	13/09/2013
Source	FUJAIRA (UAE)	Reporting Date	15/09/2013
Sample ID NO.	17781	TLC NO	16972

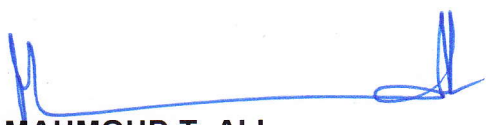
### TESTED TO ASTM C 117- 04

TEST	RESULT OBTAINED (%)	METHOD
MATERIAL FINER THEN 75 UM	0.2 %	Procedure 8 - A

QCS 2010 LIMITS : Max. 2 % for coarse & 3 % for natural uncrushed/crushed AND  
2 % for coarse & 5 % for fine crushed aggregates.

#### REMARKS :

- Material Sampled & Delivered By : LAB TECHNICIAN
- Sampling Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

  
MAHMOUD T. ALI  
LABORATORY MANAGER

مختبرات التيسير  
Teyseer Laboratories  
تليفون: 44621254، ص.ب. 1556 الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar



Page 1 of 1

Doc. No. F169 Rev. 01, 29<sup>th</sup> of September, 2011

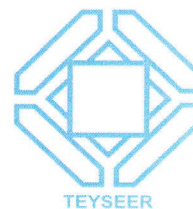
# TEYSEER LABORATORIES

P.O.BOX-1556, DOHA-QATAR, AL HILAL

TEL : 44621254, FAX : 44568977

C. R. NO.3299/023

E-mail : lab@teyseergroup.com



## TEST REPORT OF CHEMICAL ANALYSIS

CLIENT	DESERT DIAMOND		
CONTRACTOR	M/s. DESERT DIAMOND TRADING CO.		
PROJECT	AGGREGATES SUPPLY	SHEET NO.	1638
MATERIAL	AGGREGATES 20mm / GABBRO	TLC NO.	16970
SOURCE	FUJAIRA (UAE)	SAMPLE DATE	08/09/2013
LOCATION	MESAIEED	TESTING DATE	14/09/2013
SAMPLE ID No.	17781	REPORT DATE	15/09/2013

### TESTED TO BS EN 1744 -1 & 1744 - 5

TEST	RESULT OBTAINED (%)
ACID SOLUBLE SULPHATE CONTENT (SO <sub>3</sub> )	0.062 %
ACID SOLUBLE CHLORIDE CONTENT (Cl)	0.011 %

QCS 2010 Limits : SO<sub>3</sub> - Max. 0.3% For Coarse Aggregates And Max. 0.4% For Fine Aggregates

QCS 2010 Limits : Cl - Max. 0.03% For Coarse Aggregates And Max. 0.06% For Fine Aggregates

#### REMARKS :

- Material Sampled & Delivered By : LAB TECHNICIAN
- Sampling Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

  
MAHMOUD T. ALI  
LABORATORY MANAGER

مختبرات التيسير  
Teyseer Laboratories  
تليفون: 44621254 ص.ب. 1556 الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar

Page - 1 of 1

Doc. No. F254, Rev. 00 , 1<sup>st</sup> of September 2012

## TEST REPORT OF THE SHELL CONTENT

Client	DESERT DIAMOND		
Contractor	M/s. DESERT DIAMOND TRADING CO.		
Project	AGGREGATES SUPPLY	SHEET NO.	099
Material	AGG. 20MM / GABBRO	Sample Date	08/09/2013
Sampled by	LAB TECHNICIAN	Testing Date	13/09/2013
Source	FUJAIRA (UAE)	Reporting Date	15/09/2013
Sample ID NO.	17781	TLC NO	16968

### Tested to BS 812 : PART 106 : 1985

TEST	RESULT OBTAINED (%)
SHELL CONTENT	0.0%

QCS 2010 Limits : Maximum 3% For fine & Course Aggregates.

#### REMARKS :

- Material Sampled & Delivered By : LAB TECHNICIAN
- Sampling Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

MAHMOUD T. ALI  
LABORATORY MANAGER

مختبرات التيسير  
Teyseer Laboratories  
تليفون: ٤٤٦٢١٢٥٤، ص.ب. ١٥٥٦ الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar

## TEST REPORT OF THE CLAY LUMPS & FRIABLE PARTICLES

Client	DESERT DIAMOND		
Contractor	M/s. DESERT DIAMOND TRADING CO.		
Project	AGGREGATES SUPPLY	SHEET NO.	125
Material	AGG. 20MM / GABBRO	Sample Date	08/09/2013
Sample by	LAB TECHNICIAN	Testing Date	13/09/2013
Source	FUJAIRA (UAE)	Reporting Date	15/09/2013
Sample ID No.	17781	TLC NO	16966


### TESTED TO ASTM C 142 - 78 : 1990

TEST	METHOD	RESULTS OBTAINED (%)
Clay Lumps & Friable Particles	Procedure - 6	0.03 %

**QCS 2010 Limits : Maximum 2% for Fine Agg. And Max. 2% for Coarse Aggregates.**

#### REMARKS :

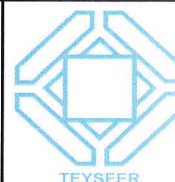
- Material Sampled & Delivered By : LAB TECHNICIAN
- Sampling Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

  
MAHMOUD T. ALI  
LABORATORY MANAGER

مختبرات التيسير  
Teyseer Laboratories  
تليفون: 44621254 ص.ب: 1556 الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar

Page 1 Of 1

Doc. No. F105 Rev. 01, 1<sup>st</sup> of September, 2011



## LABORATORY TEST REPORT

### TEST : PARTICLE DENSITIES AND WATER ABSORPTION

TESTED TO BS 812 : PART 2 : 1995

<b>SHEET No.</b>	33592	<b>LAB No</b>	0	<b>TLC No.</b>	16964
<b>CLIENT</b>	DESERT DIAMOND				
<b>CONTRACTOR</b>	M/s. DESERT DIAMOND TRADING CO.				
<b>PROJECT</b>	AGGREGATES SUPPLY				
SAMPLE ID	17781				
MATERIAL DESCRIPTION	Agg : 20MM Gabbro	SAMPLE LOCATION		MESAIEED	
SAMPLING DATE (SITE)	08/09/2013	SAMPLE RECEIVED DATE (LAB)		08/09/2013	
SOURCE OF MATERIAL	FUJAIRA (UAE)	TESTING DATE		13/09/2013	
SAMPLED BY	LAB TECH.	REPORTING DATE		15/09/2013	
DELIVERED BY	LAB TECH.	CONDITION OF SAMPLE RECEIVED		SATISFACTORY	

### TEST RESULTS

<b>Test</b>	<b>Method</b>
<b>Particle Densities And Water Absorption</b>	<b>5.4</b>

### RESULT OBTAINED

Material	O. D Basis Mg/m <sup>3</sup>	S. S. Dry Basis Mg/m <sup>3</sup>	Apparent Mg/m <sup>3</sup>	Water Absorption%
AGG. 20mm / GABBRO	2.944	2.950	2.963	0.2

**QCS 2010 Limits** : For Asphalt use - Water Absorption : Max. 1.5% for all courses and Max. 2% for Base course. And For Concrete use 2.3% Max. for fine Agg. and 2% Max. for Coarse Agg. And Particle Density : 2.6% Min. for fine Agg. & Coarse Agg.

**Remarks :**

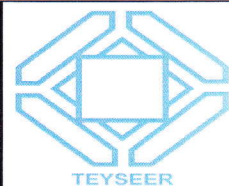
- Sampling Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

**Mahmoud T. Ali**

Laboratory Manager :

  
مختبرات التيسير  
**Teyseer Laboratories**  
تليفون: ٤٤٦٢١٢٥٤، ص.ب. ١٥٥٦ الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar

*Doc. No. F 110, Rev. 01, 10th of April, 2011*



## **LABORATORY TEST REPORT**

### **TEST : TEN PERCENT FINES VALUE**

**TESTED TO BS 812 : PART 111 : 1990**

<b>SHEET No.</b>	33590	<b>LAB No</b>	0	<b>TLC No.</b>	16962
<b>CLIENT</b>	DESERT DIAMOND				
<b>CONTRACTOR</b>	M/s. DESERT DIAMOND TRADING CO.				
<b>PROJECT</b>	AGGREGATES SUPPLY				
SAMPLE ID	17781				
SOURCE OF MATERIAL	FUJAIRA (UAE)	SAMPLING DATE (SITE)	08/09/2013		
SAMPLE RECIVED DATE (LAB)	08/09/2013	TESTING DATE	14/09/2013		
MATERIAL DESCRIPTION	Agg : 20MM Gabbro	REPORTING DATE	15/09/2013		
SAMPLED BY	LAB TECH.	DELIVERED BY	LAB TECH.		
SAMPLE CONDITION	Acceptable	SAMPLE LOCATION	MESAIEED		

### **TEST RESULTS**

Test	Method	Result Obtained (kN)
Ten Percent Fine Value	Procedure - 7	394

**QCS 2010 Limits : Minimum 150 kN For Concrete**

#### **Remarks :**

- Sample Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

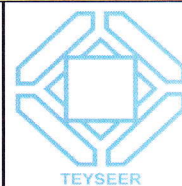
**Mahmoud T. Ali**  
Laboratory Manager

  
مختبرات التيسير  
Teyseer Laboratories  
تليفون: 44621254 ص.ب: 1556 الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar



**LB-069**

*Doc. No. F113, Rev. 01, 1st of April, 2011*



## LABORATORY TEST REPORT

### TEST : LOS ANGELES ABRASION

TESTED TO ASTM C131 & C535 : 1989

SHEET No:	33588	LAB No:	0	TLC No:	16960
CLIENT :	DESERT DIAMOND				
CONTRACTOR:	M/s. DESERT DIAMOND TRADING CO.				
PROJECT:	AGGREGATES SUPPLY				
SAMPLE ID	17781				
SAMPLE RECEIVED DATE (LAB)	08/09/2013	TESTING DATE	13/09/2013		
MATERIAL DESCRIPTION	Agg : 20MM Gabbro	REPORTING DATE	15/09/2013		
SOURCE OF MATERIAL	FUJAIRA (UAE)	SAMPLE LOCATION	MESAIEED		
SAMPLED BY	LAB TECH.	DELIVERED BY	LAB TECH.		
CONDITIONS OF SAMPLE RECEIVED	Acceptable	DATE OF SAMPLING (SITE)	08/09/2013		

### TEST RESULTS

Test	Method	Result Obtained (%)
Los Angeles Abrasion	ASTM C 131	9.6

<b>QCS 2010 Limits</b>	For Asphalt use : Maximum 25% for wearing course & Maximum 30% for Intermediate & Base course And For Concrete use : 30% Maximum course Aggregates.
------------------------	---

#### Remarks :

- Sampling Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

Mahmoud T.Ali

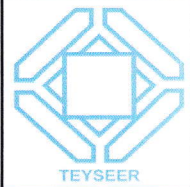
Laboratory Manager

مختبرات التيسير  
Teyseer Laboratories  
تليفون: 44621254، ص.ب. 1556 الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar



LB-069

Doc. No. F 119, Rev. 02, 1st of April, 2011



**LABORATORY TEST REPORT**  
**TEST REPORT OF THE SOUNDNESS**  
**TESTED TO ASTM C 88-1990**

SHEET No.	33586	LAB No	0	TLC No.	16958
CLIENT	DESERT DIAMOND				
CONTRACTOR	M/s. DESERT DIAMOND TRADING CO.				
PROJECT	AGGREGATES SUPPLY				
SAMPLE ID	17781				
DATE OF SAMPLING (SITE)	08/09/2013	SAMPLE RECEIVED DATE (LAB)	08/09/2013		
MATERIAL DESCRIPTION	Agg : 20MM Gabbro	TESTING DATE	14/09/2013		
SOURCE OF MATERIAL	FUJAIRA (UAE)	REPORTING DATE	15/09/2013		
SAMPLED BY	LAB TECH.	DELIVERED BY	LAB TECH.		
NO. OF CYCLES	5	CONDITION OF SAMPLE RECEIVED	SATISFACTORY		

**TEST RESULTS**

Test	Method	Result Obtained (%)
SOUNDNESS	Procedure - 8	2.3

**QCS 2010 Limits :** For Asphalt use : Maximum 10% for Wearing & Intermediate course & Maximum 15% for Base course. And For Concrete use : 15% Maximum Fine Agg. & Course Agg.

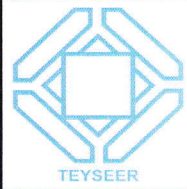
**Remarks. :**

- Sampling Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

**Mahmoud T. Ali**  
Laboratory Manager

مختبرات التيسير  
**Teyseer Laboratories**  
تليفون: 44621254 ص.ب. 1556 الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar

Doc. No. F123, Rev. 01, 10th April, 2011



## LABORATORY TEST REPORT

### TEST :ELONGATION INDEX

**TESTED TO BS 812 : PART 105 SECTION 105.2 : 1990**

<b>SHEET No:</b>	<b>33584</b>	<b>LAB No:</b>	0	<b>TLC No:</b>	<b>16956</b>
<b>CLIENT :</b>	DESERT DIAMOND				
<b>CONTRACTOR:</b>	M/s. DESERT DIAMOND TRADING CO.				
<b>PROJECT:</b>	AGGREGATES SUPPLY				
SAMPLE ID	17781				
SAMPLE RECEIVED DATE (LAB)	08/09/2013	TESTING DATE	12/09/2013		
MATERIAL DESCRIPTION	Agg : 20MM Gabbro	REPORTING DATE	15/09/2013		
SOURCE OF MATERIAL	FUJAIRA (UAE)	SAMPLE LOCATION	MESAIEED		
SAMPLED BY	LAB TECH.	DELIVERED BY	LAB TECH.		
CONDITIONS OF SAMPLE RECEIVED	Acceptable	DATE OF SAMPLING (SITE)	08/09/2013		

### TEST RESULTS

BS Sieves, mm	Seive analysis To BS 812 : Part 103.1,1985 - Procedure 7.3			Elongation Gauge Wt.Retained (g)
	Wt.Retained (g)	Retained %	Passing %	
28.0	0	0.0	100	0
20.0	89	3.1	97	0
14.0	1723	60.5	36	194
10.0	894	31.4	5	474
6.3	144	5.1	0	106

TOTAL WT.RETAINED (M1) = 2850 g

REDUCED WT. (M2) = 2761 g

ELONGATION INDEX = 28 %

TOTAL WT.RETAINED (M3) = 774 g

**QCS 2010 LIMITS :** Each stockpile 30% maximum for all courses and the average of all stockpile shall not exceed 25% for Wearing corse And (35% Maximum for Concrete use Coarse Agg.)

**Remarks :**

- Sampling Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.



**LB-069**

*Doc. No. F109, Rev 02, 28th February, 2011*

**Mahmoud T. Ali**  
 Laboratory Manager

مختبرات التيسير  
**Teyseer Laboratories**  
 تليفون: 44621254 ص.ب: 1556 الدوحة - قطر  
 Tel: 44621254 P.O.Box: 1556, Doha-Qatar

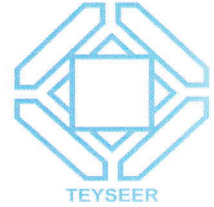
# TEYSEER LABORATORIES

P.O.BOX -1556, DOHA-QATAR

TEL : 44621254, FAX : 44568977

C. R. NO.3299/023

E-mail : lab@teyseergroup.com



## TEST REPORT OF FLAKINESS INDEX

TESTED TO BS EN 933 – 3

CLIENT	DESERT DIAMOND		
CONTRACTOR	M/s. DESERT DIAMOND TRADING CO.		
PROJECT	AGGREGATES SUPPLY	SHEET NO.	616
MATERIALS	Agg. 20mm / GABBRO	SAMPLE DATE	08/09/2013
SOURCE	FUJAIR (UAE)	TESTING DATE	12/09/2013
LOCATION	MESAIEED	REPORTING DATE	15/09/2013
SAMPLE ID NO.	17781	TLC NO.	16954

### SIEVE ANALYSIS TO BS EN 933 – 1

Sieves, mm	Mass Retained, (g)	Nominal width of slot in Bar sieve (mm)	Flakiness Sieve Wt. Passing (g)
25/31.5	0	16	0
20/25	89	12.5	0
16/20	1127	10	60
12.5/16	428	8	82
10/12.5	466	6.3	44
8/10	124	5	10
6.3/8	20	4	3
5/6.3	5	3.15	1
4/5	1	2.5	0

Total Wt. Retained, (g)	2260 g	Total Weight Passing 200 g
Flakiness index, (%)	9 %	

- QCS 2010 Limits : Maximum 30% Max. for Concrete Use
- MATERIALS SAMPLED AND DELIVERED BY : Teyseer Lab Technicians.

MAHMOUD T. ALI  
LABORATORY MANAGER

مختبرات التيسير  
Teyseer Laboratories  
تليفون: ٤٤٦٢١٢٥٤، ص.ب. ١٥٥٦ الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar





## LABORATORY TEST REPORT

### TEST : PARTICLES SIZE DISTRIBUTION OF AGGREGATE

TESTED TO BS EN 933 - 1 : 2012 CLAUSE 7

SHEET No:	33582	LAB No:	0	TLC No:	16952
CLIENT :	DESERT DIAMOND				
CONTRACTOR:	M/s. DESERT DIAMOND TRADING CO.				
PROJECT:	AGGREGATES SUPPLY				
SAMPLE ID	17781				
SAMPLE RECEIVED DATE (LAB)	08/09/2013	TESTING DATE	12/09/2013		
MATERIAL DESCRIPTION	Agg : 20MM Gabbro	REPORTING DATE	15/09/2013		
SOURCE OF MATERIAL	FUJAIRA (UAE)	SAMPLING LOCATION	MESAIEED		
SAMPLED BY	LAB TECH.	DELIVERED BY	LAB TECH.		
TEST METHOD	WET METHOD	DATE OF SAMPLING (SITE)	08/09/2013		

### RESULTS OBTAINED

BS Seives,mm	Wt.Retained (g)	Passing %	Specification	
40	0	100	100	100
31,5	0	100	98	100
20	89	97	85	99
10	2617	5	0	20
4	151	0	0	5
Passing 4 mm	4			
Total	2861			

#### Remarks :

- Sampling Procedure : Not Provided
- The test Result is related only to the sample tested.
- This Report shall only be reproduced in full, after approval from the testing Laboratory.

Mahmoud T.Ali

Laboratory Manager :

مختبرات التيسير  
Teyseer Laboratories  
تليفون: 44621254 ص.ب. 1556 الدوحة - قطر  
Tel: 44621254 P.O.Box: 1556, Doha-Qatar



LB-069