



شركة أحمد حسن المرهون وإخوانه للتجارة والمقاولات

Ahmed H. Al-Marhoon & Bros Co. For Trading & Contracting

خرسانة جاهزة Ready Mix Concrete

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Introduction

- Al Marhoon Co. was established in **1979**.
- Al Marhoon Co. is one of the first providers of Quality Ready Mix Concrete in the **Kingdom**.
- Al Marhoon Co. is an approved supplier for **Saudi Aramco & Saudi Electricity Company**.



- Our Ready Mix Concrete production fulfills the standardization procedures specified by **ASTM (American Society for Testing & Materials)**

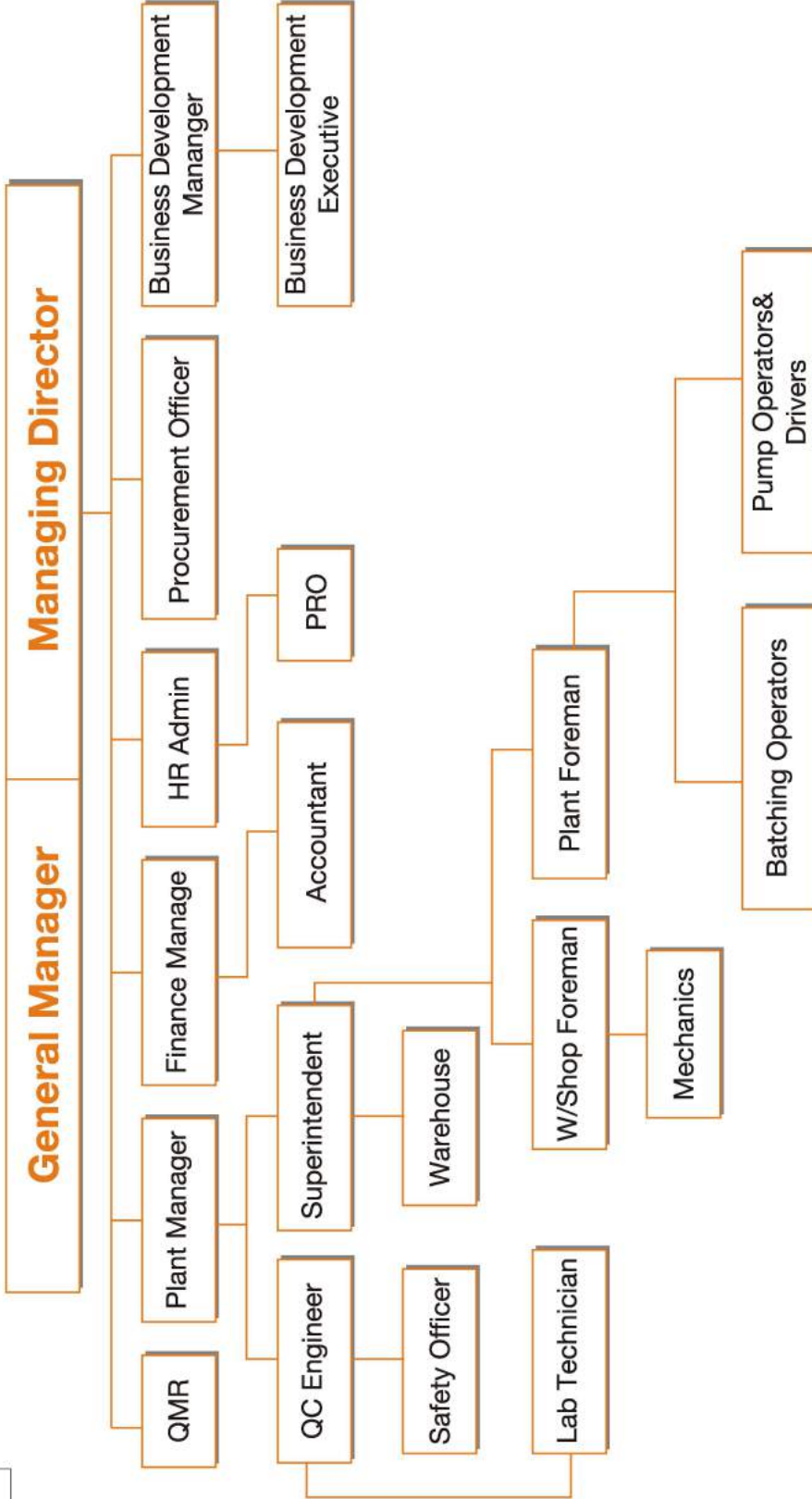


- In order to provide durable and strong Concrete, we perform the guidelines that are set by **ACI (American Concrete Institute)**



- We Operate a Quality Management System (QMS) which complies with the requirements of **(ISO 9001:2015)**

Organizational Chart



Technical Data

Computer Batching Automation

The batching plants are equipped with Command Alkon (fully automatic) computer automation system with independent display of weight scales calibrated by Saudi Aramco's certified agency.



Ice Production Plant

The Batching plants are equipped with own ice plant (Snow Key), with production capacity of 25 Tons/day and equipped with a separate 30,000 kg capacity ice storage container.

Water Chilling Plant

Along with ice plant (Snow Key), our ready mix is also equipped with one water chiller which is capable of cooling from 60° C 120000 liters feed water to a final temperature of 0.5° C per day.

Aggregate Washing Plant

There is one aggregate washing plant with a production capacity of 30mt/hour. Aggregates are washed with water having a TDS of 1800-2000 ppm which is checked daily by our Q/C technicians prior to production

Technical Data

Locations

Almarhoon's Batching Plants are located in Ras Tanura 3rd Industrial Area.

Departments such as Management, Human Resources and Accounting are located in King Abdulaziz street in Ras Tanura.

The workshop & maintenance facilities are located in Um Al Sahik. There's also an office for sales and customer service that is located in Safwa.

It is strategically located in Ras Tanura (industrial area), catering for the supply of Saudi Aramco, Saudi Electricity Company (SEC), Port, and local requirements of Ras Tanura and within a 60 km Radius.



Clients

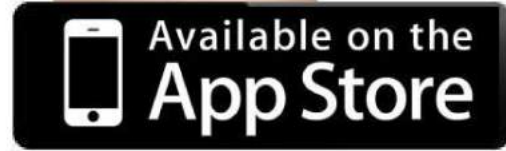
We strive to provide high quality ready mix concrete to wide range of projects.

We are committed to satisfy the needs fo all our customers whether the service requested is for a tiny area or a gaint structure “The sky’s the limit”.

Our customers include ; individuals, contractors, government sectors, as well as private sectors.



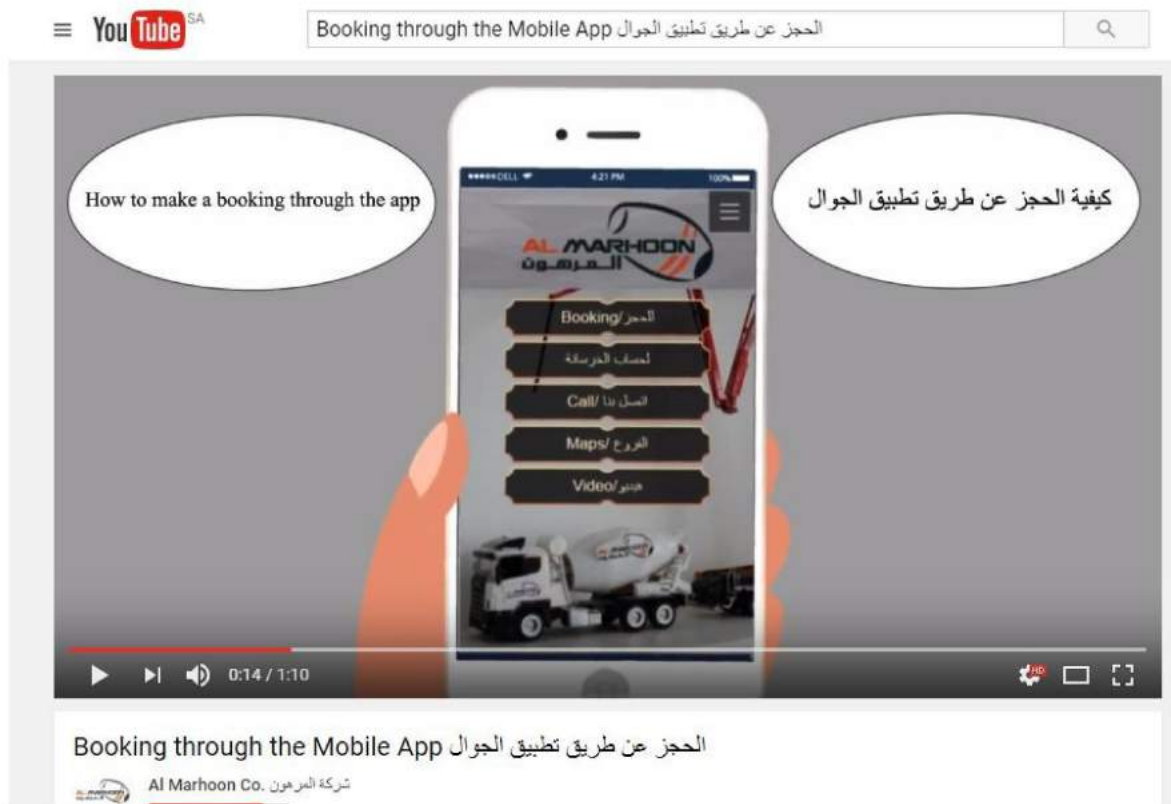
Mobile Application



- Customers can easily utilize the application to make a booking..
- Booking online is also available by accessing the following link:

<http://almarhoon.com.sa/form/booking/>

- For more clarifications, watch the video "Booking through the Mobile App" our channel on [YouTube](#).



Guidelines For Contractors's and House Owners

DURING AND AFTER POURING

- **Workability** (Ability to work with the Concrete)
- To achieve workability and to maintain the quality and the strength of Concrete , add Chemical Admixtures such as **Conplast (SP430)**
- (SP430) is a Superplasticising Admixture that complies with ASTM C494 Type A & F
- For more details about this product, visit the following: <http://www.fosroc.com/product/show/conplast-sp430->
- **DO NOT ADD WATER !!!**
- The negative impacts of adding water :
 - Reduced Compressive Strength.
 - Segregation.
 - Corrosion of reinforcing steel.

AFTER PLACMENT AND FINISHING

CURING
is the process of controlling the rate and extent of moisture loss from concrete during cement hydration. It's very essential for the strength and Durability of Concrete.

METHODS FOR CURING


- **Ponding:** for Roof and Foundation
- **Wet Covering:** Burlap System for Columns and Beams
- Curing should be applied with sweet water.
- According to ASTM C150 the minimum curing time is :
 - **1 week** for TYPE I cement (OPC)
 - **2 weeks** for TYPE V cement (SRC)

VIBRATOR

- Vibrator should be utilized by 2 professional workers in a Vertical direction.
- Vibrator's needle must not touch other elements such as steel, wood, etc.
- Do not use the vibrator to spread concrete as it would cause segregation. Use a shovel instead.
- According to ACI 309R:
 - The Vibrator should be inserted quickly to penetrate the layers of concrete
 - The Vibrator should be withdrawn slowly to remove entrapped air

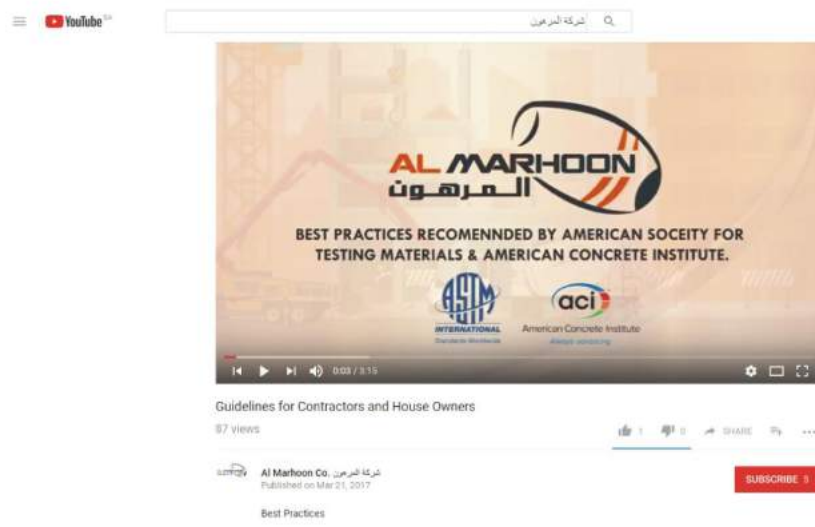
REMOVAL OF SHUTTERING / REMOVAL OF FORMWORK

TYPE OF FORM	REMOVAL TIME PERIOD
Walls, columns and vertical sides of beams	• 2 days
Beam soffits (props left under)	• 21 days
Removal of props to slabs (Spanning up to 4.5 m)	• 21 days
Removal of props to slabs (Spanning over 4.5 m)	• 28 days
Removal of props to beams and arches (Spanning up to 6 m)	• 28 days
Removal of props to beams and arches (Spanning over 6 m)	• 28 days

* Watch these instructions through our channel 

Guidelines For Contractors's and House Owners

***Those instructions are also available to be seen on Youtube in Arabic and English.**



Quality Management System (ISO 9001:2015)


Certificate of Registration
 Certificate No: 170915016621
This is to Certify that the Management System of
Ahmed H. Al-Marhoon & Brothers Co. for Trading & Contracting
 P.O Box # 42, King Abdulaziz street, az zuhar, Rastanura 31921
 Kingdom of Saudi Arabia
Has been assessed and found to be in accordance with the requirements of
standard detailed below
ISO 9001:2015
This Certificate is valid for the following scope
**“Production and Distribution of Ready Mix
Concrete & Cement Products”**

Initial Registration Date	15 th Sep. 2017	Issue Date	15 th Sep. 2017
1 st Surveillance on or before	15 th Aug. 2018	Valid Until	14 th Sep. 2018
2 nd Surveillance on or before	15 th Aug. 2019	IAF Group	16
		Revision	00

UAF is full member of International Accreditation Forum (IAF)
To check validity of the certificate please visit www.tnvworld.com






 Managing Director
 TNV Certification Pvt Ltd.
 Accredited by United Accreditation
 Foundation (UAF)

**Validity of the certificate is subject to successful completion of surveillance audits. Further certification regarding the scope of this certificate and applicability of standard may be obtained by consulting the organisation.
 This certificate remains property of TNV Certification P.Ltd. For surveillance details, please visit at www.tnvcert.org*

Materials Test Reports



Certificate # 3512.05

**Construction Materials Testing Laboratory
Jubail Branch**

P.O. Box 2165 - Tel.: (013) 341 2700
Dammam 31451 - Fax.: (013) 341 2701
Saudi Arabia - E-mail.: fsjubail@fugro-suhaimi.com



السحيمي - فيغرو

SUMMARY OF TEST REPORT

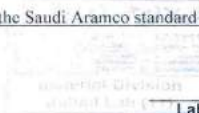
Client	Ahmed H.Al Marhoon & Bros Co. For Trading & Contracting	Job No.	SA08-3012
Project	Ready Mix Concrete Batch Plant, Rahima	Lab No.	19339
Material	3/4" (20 mm) Coarse Aggregate	Date Sampled	05 Sept. 2017
Source	Al Osais, Abuhadriya (Sampled by FSL)	Date Reported	18 Sept. 2017

Properties:

Properties Tested	Test Method	Results	S. Aramco Specification	
Sieve analysis	ASTM C-136	See Attached	--	
Material finer than No. 200 sieve	% ASTM C-117	0.5	1.0 max.	
Clay lumps & friable particles	% ASTM C-142	0.33	5.0 Max.	
CHERT	ASTM C33	<0.01	5.0 Max.	
Raw 1 AND 2 Combined	-	0.34	6.0 Max.	
Los Angeles Abrasion	ASTM C-131	-		
Loss at 100 revolutions		%	7.8	--
Loss at 500 revolutions		%	32.6	50 max.
Ratio 100/500 rev.			0.24	--
Magnesium sulfate soundness loss (5 cycles)	% ASTM C-88	14.4	25.0 max.	
Specific gravity and absorption	ASTM C-127			
Apparent			2.635	--
SSD basis			2.585	--
Dry basis			2.554	--
Absorption			1.2	2.5 max
Acid soluble chloride, (Cl), %	% ASTM C 114	-	-	
		0.007	0.03 max	
Acid soluble sulphate (SO ₃), %	BS-812 Part 118	0.065	0.40 Max	
Flakiness index	BS-812	14.6	--	
Elongation index	BS-812	14.9	--	
Coal & lignite	ASTM C-123	Nil	0.5	

Remarks: All test results indicate compliance with the Saudi Aramco standard 09-SAMSS-088.

Tested By: Thomas Reviewed By: Jose
CTTA # : 0194 CTTA # : 195



[Signature]

**Laboratory Manager
Mohammad Nawaz CTTA # 0037**

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Form # MAT 4.15 Issue # 2 Rev.1 01 April 2012



Certificate # 3512.05

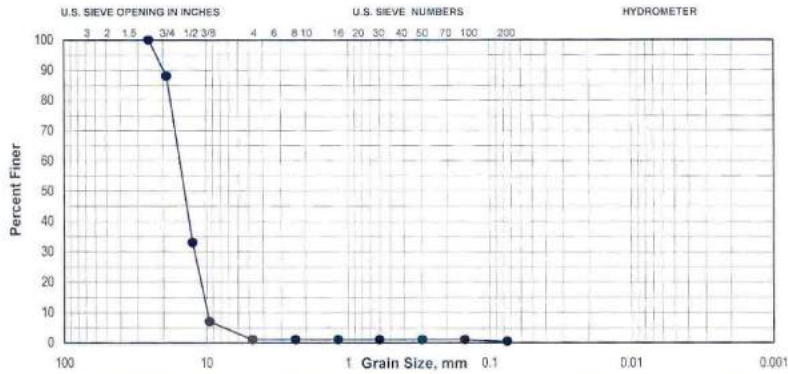
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Jubail Branch

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Saudi Arabia - E-mail: fsljubail@fugro-suhaimi.com



PARTICLE SIZE ANALYSIS TEST REPORT

Client	Ahmed H. Al Marhoon & Bros Co. For Trading & Contracting	Job No.	SA08-3012
Project	Ready Mix Concrete Batch Plant, Rahima	Lab No.	19339
Material	3/4" (20 mm) Coarse Aggregate	Date Sampled	05 Sept. 2017
Source	Al Osais, Abuhadriya (Sampled by FSL)	Date Tested	06-07 Sept. 2017
Method	ASTM C-136/117	Date Reported	18 Sept. 2017



Gravel		Sand			Silt or Clay
Coarse	fine	Coarse	medium	Fine	

Description of Sand / Gravel Particles:

Shape	Hardness	Specific Gravity

Sieve Size Inch(mm)	Passing %	Specification	Properties Tested		
			Item	Description	Result
1 (25.0 mm)	100				
3/4 (19 mm)	88				
1/2 (12.5 mm)	33				
3/8 (9.5 mm)	7				
#4 (4.75 mm)	1				
#8 (2.36 mm)	1				
#16 (1.18 mm)	1				
#30 (0.600 mm)	1				
#50 (0.300 mm)	1				
#100 (0.150 mm)	1				
#200 (0.075 mm)	0.5				

Remarks

Tested By: Thomas Reviewed By: Jose
CTTA # : 0194 CTTA # : 195



Laboratory Manager
Mohammad Nawaz CTTA # 0037

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Form # MAT 3.02

Issue # 2

Rev.1

01 April 2012



Certificate # 3512.05

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Jubail Branch

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السحيمي - فينغرو

SUMMARY OF TEST REPORT

Client	Ahmed H. Al Marhoon & Bros Co. For Trading & Contracting	Job No.	SA08-3012
Project	Ready Mix Concrete Batch Plant, Rahima	Lab No.	19340
Material	3/8" (10- mm) Coarse Aggregate	Date Sampled	05 Sept. 2017
Source	Al Osais, Abuhadriya (Sampled by FSL)	Date Reported	18 Sept. 2017

Properties:

Properties Tested	Test Method	Results	S. Aramco Specification
Sieve analysis	ASTM C-136	See Attached	--
Material finer than No. 200 sieve %	ASTM C-117	0.7	1.0 max.
Clay lumps & friable particles %	ASTM C-142	0.53	5.0 max.
CHERT %	ASTM C-33	<0.01	5.0 max.
RAW 1 AND 2 Combined	-	0.54	6.0 max.
Los Angeles Abrasion	ASTM C-131		
Loss at 100 revolutions %		8.6	--
Loss at 500 revolutions %		34.8	50 max.
Ratio 100/500 rev.		0.25	--
Magnesium sulfate soundness loss (5 cycles) %	ASTM C-88	15.8	25.0 max.
Specific gravity and absorption	ASTM C-127	-	
Apparent		2.616	--
SSD basis		2.563	--
Dry basis		2.530	--
Absorption		1.3	2.5 max
Acid soluble chloride, (Cl), %	ASTM C 114	0.011	0.03 max
Acid soluble sulphate (SO ₃), %	BS-812 Part 118	0.111	0.40 Max
Flakiness index	BS-812	13.5	--
Elongation index	BS-812	18.9	--
Coal & lignite	ASTM C-123	Nil	0.5

Remarks: All test results indicate compliance with the Saudi Aramco standard 09-SAMSS-088.Tested By: Thomas Reviewed By: José
CTTA # : 0194 CTTA # : 195Laboratory Manager
Muhammad Nawaz CTTA # 0037

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Form # MAT 4.15

Issue # 2

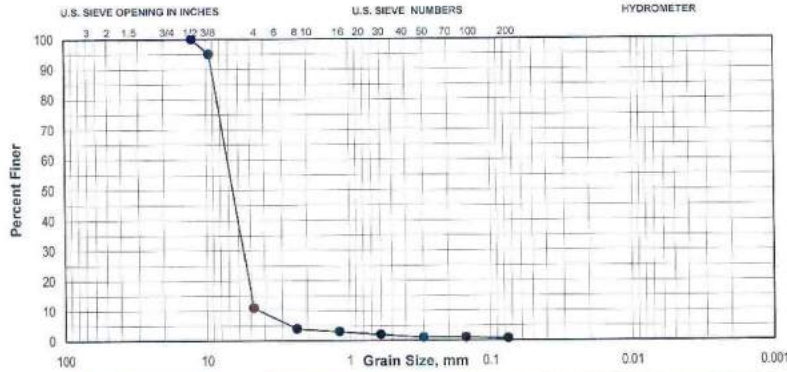
Rev.1

01 April 2012



PARTICLE SIZE ANALYSIS TEST REPORT

Client	Ahmed H.AI Marhoon & Bros Co. For Trading & Contracting	Job No.	SA08-3012
Project	Ready Mix Concrete Batch Plant, Rahima	Lab No.	19340
Material	3/8" (10 mm) Coarse Aggregate	Date Sampled	05 Sept. 2017
Source	Al Osais, Abuhadriya (Sampled by FSL)	Date Tested	06-07 Sept. 2017
Method	ASTM C-117/136	Date Reported	18 Sept. 2017



Gravel		Sand			Silt or Clay
Coarse	fine	Coarse	medium	fine	

Description of Sand / Gravel Particles:

Shape	Hardness	Specific Gravity

Sieve Size Inch(mm)	Passing %	Specification	Properties Tested		
			Item	Description	Result
3/4 (19.0 mm)	100				
1/2 (12.5 mm)	95				
3/8 (9.5 mm)	11				
#4 (4.75 mm)	4				
#8 (2.36 mm)	3				
#16 (1.18 mm)	2				
#30 (0.600 mm)	1				
#50 (0.300 mm)	1				
#100 (0.15 mm)	1				
#200 (75 mm)	0.7				

Remarks

Tested By: Thomas Reviewed By: Jose
 CTTA #: 0194 CTTA #: 0195p

شركة الشحيمي - فينغرو
FUGRO-SUHAIMI
 Material Division
 Jubail Lab
 Laboratory Manager
 Mohammad Nawaz CTTA # 0037



Certificate # 3512.05

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Dammam 31451 - Fax.: (013) 341 2701

Saudi Arabia - E-mail.: fsljubail@fugro-suhaimi.com



السحيمي - فيغرو

SUMMARY OF TEST REPORT

Client	Ahmed H.Al Marhoon & Bros Co. For Trading & Contracting	Job No.	SA08-3012
Project	Ready Mix Concrete Batch Plant, Rahima	Lab No.	19341
Material	Dune Sand	Date Sampled	05 Sept. 2017
Source	Baladiyah, Jubail (Sampled by FSL)	Date Reported	18 Sept. 2017

Properties:

Properties Tested	Test Method	Results	S. Aramco Specification
Sieve analysis	ASTM C-136	See Attached	--
Material finer than No. 200 sieve	% ASTM C-117	1.8	3.0 Max.
Clay lumps & friable particles	% ASTM C-142	N/A	3.0 Max.
CHERT	ASTM C33	<0.04	3.0 Max.
RAW 1 AND 2 Combined	-	0.01	6.0 Max.
Magnesium sulphate soundness loss (5 cycles)	% ASTM C-88	6.3	25.0 Max.
Specific gravity and absorption	ASTM C-127	-	
Apparent		2.662	--
SSD basis		2.628	--
Dry basis		2.608	--
Absorption		0.8	
Acid soluble chloride, (Cl), %	% ASTM C 114	0.004	0.06 max
Acid soluble sulphate (SO ₃), %	BS-812 Part 118	0.035	0.40 Max
Organic impurities	ASTM C-40	Lighter than std.	Light then std.

Remarks: All test results indicate compliance with the Saudi Aramco standard 09-SAMSS-088.Tested By: Thomas Reviewed By: Jose
CTTA # : 0194 CTTA # : 195Laboratory Manager
Muhammad Nawaz CTTA # 0037

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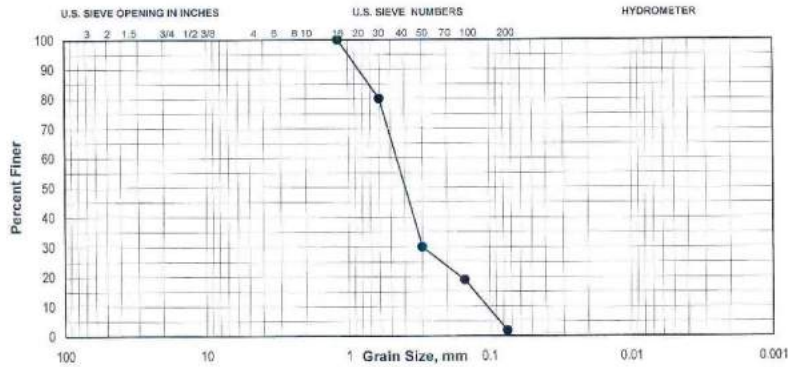
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Saudi Arabia - E-mail.: fsjubail@fugro-suhaimi.com



PARTICLE SIZE ANALYSIS TEST REPORT

Client	Ahmed H. Al Marhoon & Bros Co. For Trading & Contracting	Job No.	SA08-3012
Project	Ready Mix Concrete Batch Plant, Rahima	Lab No.	19341
Material	Sand	Date Sampled	05 Sept. 2017
Source	Baladiyah, Jubail (Sampled by FSL)	Date Tested	06-07 Sept. 2017
Method	ASTM C-117/136	Date Reported	18 Sept. 2017



Gravel		Sand			Silt or Clay
Coarse	fine	Coarse	medium	fine	

Description of Sand / Gravel Particles:		
Shape	Hardness	Specific Gravity

Sieve Size Inch(mm)	Passing %	Specification	Properties Tested		
			Item	Description	Result
#8 (2.35 mm)	100				
#16 (1.18 mm)	80				
#30 (0.600 mm)	30				
#50 (0.300 mm)	19				
#100 (0.15 mm)	1.8				
#200 (0.075 mm)					

Remarks	
---------	--

Tested By: Thomas Reviewed By: José
CTTA # : 0194 CTTA # : 0195p



Laboratory Manager
Mohammed Nawaz CTTA # 0037

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SUMMARY OF TEST REPORT
COMBINED AGGREGATE

Client	Ahmed H.Al Marhoon & Bros Co. For Trading & Contracting	Job No.	SA08-3012
Project	Ready Mix Concrete Batch Plant, Rahima	Lab No.	19339-19340
Material	3/4" - 3/8" Coarse Aggregate	Date Sampled	05 Sept. 2017
Source	Al Osais, Abuhadriya (Sampled by FSL)	Date Reported	18 Sept. 2017

Combined Grading

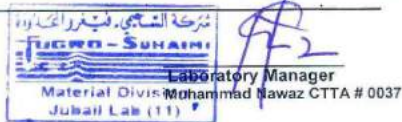
Sieve Size (mm)	Percent passing by weight			
	20-mm Size	10-mm size	55:45% 20:10-mm Blended	ASTM C 33 Size 67 limits
25	100	100	100	100
19	88	100	93	90-100
12.5	33	100	63	--
9.5	7	95	47	20-55
4.75	1	11	6	0-10
2.36	1	4	2	0-5

Combined Soundness Loss By Magnesium Sulfate

Aggregate Size :	20 mm	10 mm
Individual Loss %	14.4	15.8
Combined loss @ 55: 45%	15.0p	

Remarks:

Tested By: Thomas CTTA # : 0194
Reviewed By: Joss CTTA # : 195



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Form # MAT 4.16

Issue # 2

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01 April 2012



Certificate # 3512.05

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Saudi Arabia - E-mail: fsljubail@fugro-suhaimi.com



المسحبي - فينغرو

TEST REPORT FOR CHEMICAL ANALYSIS ON WATER

Client	Ahmed H.Al Marhoon & Bros Co. For Trading & Contracting	Report Date	18 Sept. 2017
Project	Ready Mix Concrete Batch Plant, Rahima	Job No.	SA08-3012
Source	Sampled by FSL/ Al Kawther	Lab No.	19342
		Sampled by	FSL


Fugro-Suhaimi Ltd. (FSL) has performed chemical analysis on a water sample based on client request. The testing was carried out in accordance with the relevant ASTM and APHA Methods. The results and pertinent information are as follows:

Test results

Serial No.	Determination	Test Results	S. Aramco Specification
2.	pH	7.83	6 - 8
3.	Chloride as Cl ⁻ , ppm	60.3	--
4.	Sulfate as SO ₄ , ppm	1.0	--
5.	Total Dissolved Solids- TDS, ppm	158.4	500 max

Remarks: All test results indicate compliance with the Saudi Aramco standard 09-SAMSS-088.

Tested By: Thomas Reviewed By: WN
CTTA #: 0194 CTTA #: _____

 Laboratory Manager
Muhammad Nawaz CTTA # 0037

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Form # CHE 102

Issue # 2

Rev.1

01 April 2012

Certificate of Calibration Aggregats Scale



AL-HOTY CALIBRATION SERVICES

A BRANCH OF AL-HOTY CO. LTD.

Calibration Laboratory
 C. R. 2051015391
 P.O. Box 31729, Al-Khobar 31952
 Kingdom of Saudi Arabia
 Tel. : (013) 864 4150 / 894 8020 / 894 5452
 Fax : (013) 898 1644 / 8943980
 E-Mail : acs.kh@al-hoty.com
 Website : www.alhoty Calibration.com



Certificate of Calibration

Certificate No: 201446

Customer Name: A.H. Al Marhoon & Brothers Co. for Trading & Cont'g.
Address: P. O. Box 42 Safwa 31921, K. S. A.

Product Identification and Specification

Item Submitted: Aggregate Scale
Manufacturer: Command Alkon
Model: Spectrum VI
Serial Number: CB132381-A
Asset Number: N/A
Customer P.O: 1518

Page No: 1 of 2
Received Date: 18 August 2017
Calibration Date: 18 August 2017
Calibration Due Date: 18 December 2017
Received Condition: In good condition
Returned Condition: In good condition

Calibration Procedure: ICP-I-071

Summary of Procedure: The Unit Under Test (UUT), an aggregate scale was carried-out by build-up test method using known weights with material or other product used during production. The test weights were placed onto the hopper and reading was then taken from the scale / indicator.

Environmental Condition: 36.4°C/57%RH

Calibration Results: (see the next page)

Calibration Notes:

*Basis of Tolerance : ASTM C94/C94M-16
 Max. Capacity : 12,000 kg / Min. Division : 5 kg
 Location : Batch Plant # 3, Rastanura*

Standard Used to Calibrate Instrument:

Description	ACS Number	Cal Due Date	Traceability
Test Weights	ACS-KH-027	12 September 2017	195130 (NMCC, KSA / PTB, DE / NPL, UK / NIST, USA & NRC)
Digital Thermo-Hygrometer	ACS-KH-464	02 February 2018	197254 (NIST, USA / NPL, UK / PTB, DE & NRC)

Calibrated By:  Calibration Tech. (Stamp)



Approved By:  Quality Manager

The reported expanded uncertainty of measurement is stated as the standard uncertainty measurement multiplied by the coverage factor k=2, providing a level of confidence of approximately 95%.
 This certifies that the above listed instrument has been calibrated using standards whose accuracies are traceable to national or international standards and in accordance with the quality system conform to ISO/IEC 17025:2005.

This certificate applies only to the item described. Calibration certificate without signature and stamp is not valid. The readings presented are the result at the time of calibration and do not carry any implication regarding the long term stability of the item submitted.

This certificate may not be reproduced other than in full, except with the prior written approval by Al Hoty Calibration Services.
 ACS-CERTIFICATE-03

AL-HOTY CALIBRATION SERVICES

Aggregate Scale	Certificate Number: 201446
Serial Number: CB132381-A	Page: 2 of 2

Calibration Results

Test Description	Applied Load (kg)	UUT Reading (kg)		Error (% of F. S.)	Tolerance (% of F. S.)	Uncertainty (kg)
		As found	As left			
Scale Accuracy Test	500	500	500	0.00	± 0.15	± 2.9
	1000	1000	1000	0.00	± 0.15	± 2.9
	1500	1500	1500	0.00	± 0.15	± 2.9
	2000	2000	2000	0.00	± 0.15	± 2.9
	2500	2500	2500	0.00	± 0.15	± 2.9
	3000	3000	3000	0.00	± 0.15	± 2.9
	3500	3500	3500	0.00	± 0.15	± 2.9
	4000	4000	4000	0.00	± 0.15	± 2.9
	4500	4500	4500	0.00	± 0.15	± 2.9
	5000	5000	3600	0.00	± 0.15	± 2.9
	5500	5500	5500	0.00	± 0.15	± 2.9
	6000	6000	6000	0.00	± 0.15	± 2.9



End of Certificate

Certificate of Calibration Cement Scale - A



AL-HOTY CALIBRATION SERVICES

A BRANCH OF AL-HOTY CO. LTD.

Calibration Laboratory
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Fax : (013) 898 1644 / 8943980
E-Mail : acs.kh@al-hoty.com
Website : www.alhoty Calibration.com



Certificate of Calibration

Certificate No: 201447

Customer Name: A.H. Al Marhoon & Brothers Co. for Trading & Cont'g.
Address: P. O. Box 42 Safwa 31921, K. S. A.

Product Identification and Specification

Item Submitted: Cement Scale-A
Manufacturer: Command Alkon
Model: Spectrum VI
Serial Number: CB132381-CA
Asset Number: N/A
Customer P.O: 1518

Page No: 1 of 2
Received Date: 18 August 2017
Calibration Date: 18 August 2017
Calibration Due Date: 18 December 2017
Received Condition: In good condition
Returned Condition: In good condition

Calibration Procedure: ICP-I-071

Summary of Procedure: The Unit Under Test (UUT), a cement scale was carried-out by build-up test method using known weights with material or other product used during production. The test weights were placed onto the hopper and reading was then taken from the scale / indicator.

Environmental Condition: 35.6°C/50%RH

Calibration Results: (see the next page)

Calibration Notes:

Basis of Tolerance : ASTM C94/C94M-16
Max. Capacity : 3,500 kg / Min. Division : 1 kg
Location : Batch Plant # 3, Rastanura

Standard Used to Calibrate Instrument:

Description	ACS Number	Cal Due Date	Traceability
Test Weights	ACS-KH-027	12 September 2017	195130 (NMCC, KSA / PTB, DE / NPL, UK / NIST, USA & NRC)
Digital Thermo-Hygrometer	ACS-KH-464	02 February 2018	197254 (NIST, USA / NPL, UK / PTB, DE & NRC)

Calibrated By: 
Calibration Tech. (Stamp)



Approved By: 
Quality Manager

The reported expanded uncertainty of measurement is stated as the standard uncertainty measurement multiplied by the coverage factor k=2, providing a level of confidence of approximately 95%.
This certifies that the above listed instrument has been calibrated using standards whose accuracies are traceable to national or international standards and in accordance with the quality system conform to ISO/IEC 17025:2005.
This certificate applies only to the item described. Calibration certificate without signature and stamp is not valid. The readings presented are the result at the time of calibration and do not carry any implication regarding the long term stability of the item submitted.
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ACS-CERTIFICATE-03

AL-HOTY CALIBRATION SERVICES

Cement Scale-A	Certificate Number: 201447
Serial Number: CB132381-CA	Page: 2 of 2

Calibration Results

Test Description	Applied Load (kg)	UUT Reading (kg)		Error (% of F. S.)	Tolerance (% of F. S.)	Uncertainty (kg)
		As found	As left			
Scale Accuracy Test	200	200	200	0.00	± 0.15	± 0.58
	400	400	400	0.00	± 0.15	± 0.58
	600	600	600	0.00	± 0.15	± 0.58
	800	800	800	0.00	± 0.15	± 0.58
	1000	1000	1000	0.00	± 0.15	± 0.58
	1200	1200	1200	0.00	± 0.15	± 0.58
	1400	1400	1400	0.00	± 0.15	± 0.58
	1600	1600	1600	0.00	± 0.15	± 0.58



End of Certificate

Certificate of Calibration Cement Scale - B



AL-HOTY CALIBRATION SERVICES

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 Website : www.alhoty Calibration.com



Certificate of Calibration

Certificate No: 201448

Customer Name: A.H. Al Marhoon & Brothers Co. for Trading & Cont'g.
Address: P. O. Box 42 Safwa 31921, K. S. A.

Product Identification and Specification

Item Submitted:	Cement Scale –B	Page No:	1 of 2
Manufacturer:	Command Alkon	Received Date:	18 August 2017
Model:	Spectrum VI	Calibration Date:	18 August 2017
Serial Number:	CB132381-CB	Calibration Due Date:	18 December 2017
Asset Number:	N/A	Received Condition:	In good condition
Customer P.O:	1518	Returned Condition:	In good condition

Calibration Procedure: ICP-I-071

Summary of Procedure: The Unit Under Test (UUT), a cement scale was carried-out by build-up test method using known weights with material or other product used during production. The test weights were placed onto the hopper and reading was then taken from the scale / indicator.

Environmental Condition: 35.9°C/53%RH


Calibration Results: (see the next page)

Calibration Notes:

*Basis of Tolerance : ASTM C94/C94M-16
 Max. Capacity : 1,000 kg / Min. Division : 1 kg
 Location : Plant # 3, Rastanura*

Standard Used to Calibrate Instrument:

Description	ACS Number	Cal Due Date	Traceability
Test Weights	ACS-KH-027	12 September 2017	195130 (NMCC, KSA / PTB, DE / NPL, UK / NIST, USA & NRC)
Digital Thermo-Hygrometer	ACS-KH-464	02 February 2018	197254 (NIST, USA / NPL, UK / PTB, DE & NRC)

Calibrated By: 
 Calibration Tech. (Stamp)



Approved By: 
 Quality Manager

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 ACS-CERT-1008/Rev. 03

AL-HOTY CALIBRATION SERVICES

Cement Scale-B	Certificate Number: 201448
Serial Number: CB132381-CB	Page: 2 of 2

Calibration Results

Test Description	Applied Load (kg)	UUT Reading (kg)		Error (% of F. S.)	Tolerance (% of F. S.)	Uncertainty (kg)
		As found	As left			
Scale Accuracy Test	40	40.00	40.00	0.00	± 0.15	± 0.58
	80	80.00	80.00	0.00	± 0.15	± 0.58
	120	120.00	120.00	0.00	± 0.15	± 0.58
	160	160.00	160.00	0.00	± 0.15	± 0.58
	200	200.00	200.00	0.00	± 0.15	± 0.58
	240	240.00	240.00	0.00	± 0.15	± 0.58



End of Certificate

Certificate of Calibration Ice Scale



AL-HOTY CALIBRATION SERVICES

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Certificate of Calibration

Certificate No: 201449

Customer Name: A.H. Al Marhoon & Brothers Co. for Trading & Cont'g.
Address: P. O. Box 42 Safwa 31921, K. S. A.

Product Identification and Specification

Item Submitted: Ice Scale
Manufacturer: Command Alkon
Model: Spectrum VI
Serial Number: CB132381-I
Asset Number: N/A
Customer P.O.: 1518

Page No: 1 of 2
Received Date: 18 August 2017
Calibration Date: 18 August 2017
Calibration Due Date: 18 December 2017
Received Condition: In good condition
Returned Condition: In good condition

Calibration Procedure: ICP-I-071

Summary of Procedure: The Unit Under Test (UUT), an ice scale was carried-out by build-up test method using known weights with material or other product used during production. The test weights were placed onto the hopper and reading was then taken from the scale / indicator.

Environmental Condition: 36.6°C/52%RH


Calibration Results: (see the next page)

Calibration Notes:

*Basis of Tolerance : ASTM C94/C94M-16
 Max. Capacity : 500 kg / Min. Division : 1 kg
 Location : Plant # 3, Rastanura*

Standard Used to Calibrate Instrument:

Description	ACS Number	Cal Due Date	Traceability
Test Weights	ACS-KH-027	12 September 2017	195130 (NMCC, KSA / PTB, DE / NPL, UK / NIST, USA & NRC)
Digital Thermo-Hygrometer	ACS-KH-464	02 February 2018	197254 (NIST, USA / NPL, UK / PTB, DE & NRC)

Calibrated By:  Calibration Tech. (Stamp)



Approved By:  Quality Manager

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 ACS-CERT/COV/Rev. 03

AL-HOTY CALIBRATION SERVICES

Ice Scale	Certificate Number: 201449
Serial Number: CB132381-I	Page: 2 of 2

Calibration Results

Test Description	Applied Load (kg)	UUT Reading (kg)		Error (% of F. S.)	Tolerance (% of F. S.)	Uncertainty (kg)
		As found	As left			
Scale Accuracy Test	40	40.00	40.00	0.00	± 0.15	± 0.58
	80	80.00	80.00	0.00	± 0.15	± 0.58
	120	120.00	120.00	0.00	± 0.15	± 0.58
	160	160.00	160.00	0.00	± 0.15	± 0.58
	200	200.00	200.00	0.00	± 0.15	± 0.58
	240	240.00	240.00	0.00	± 0.15	± 0.58



End of Certificate

Certificate of Calibration Water Meter # 1



AL-HOTY CALIBRATION SERVICES
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Website : www.alhoty Calibration.com



Certificate of Calibration

Certificate No: 201450

Customer Name: A.H. Al Marhoon & Brothers Co. for Trading & Cont'g.
Address: P. O. Box 42 Safwa 31921, K. S. A.

Product Identification and Specification

Item Submitted: Water Meter # 1
Manufacturer: Command Alkon
Model: Spectrum VI
Serial Number: CB132381-W1
Asset Number: N/A
Customer P.O: 1518

Page No: 1 of 2
Received Date: 18 August 2017
Calibration Date: 18 August 2017
Calibration Due Date: 18 December 2017
Received Condition: In good condition
Returned Condition: In good condition

Calibration Procedure: ICP-I-078

Summary of Procedure: The Unit Under Test (UUT), a water meter was calibrated by measuring the actual output water using a volumetric graduated container.

Environmental Condition: 34.8°C / 49%RH

Calibration Results: (see the next page)

Calibration Notes:


Basis of Tolerance : ASTM C94/C94M-16
Max. Capacity : 65535 Liters / 5 L
Location : Batch Plant # 3, Rastanura

Standard Used to Calibrate Instrument:

Description	ACS Number	Cal Due Date	Traceability
Volumetric Graduated Container	ACS-KH-392-1	17 Sep 2017	195321 (NMCC, KSA / PTB, DE / NIST, USA)
Digital Thermo-Hygrometer	ACS-KH-464	02 Feb 2018	197254 (NIST, USA / NPL, UK / PTB, DE & NRC)

Calibrated By: 
Calibration Tech. (Stamp)



Approved By: 
Quality Manager

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ACS CERT/COV/REV/03

AL-HOTY CALIBRATION SERVICES

Water Meter # 1	Certificate Number 201450
Serial Number: CB132381-W1	Page: 2 of 2

Calibration Results

Test Description	Meter Setting (liters)	Measured Output (liters)	Error (% of reading)	Tolerance (% of reading)	Uncertainty (liters)
Meter Accuracy	200	200	0.00	± 1	± 3.0



End of Certificate

Certificate of Calibration Water Meter # 2



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Certificate of Calibration

Certificate No: 201451

Customer Name: A.H. Al Marhoon & Brothers Co. for Trading & Cont'g.
Address: P. O. Box 42 Safwa 31921, K. S. A.

Product Identification and Specification

Item Submitted: Water Meter # 2
 Manufacturer: Command Alkon
 Model: Spectrum VI
 Serial Number: CB132381-W2
 Asset Number: N/A
 Customer P.O: 1518

Page No: 1 of 2
 Received Date: 18 August 2017
 Calibration Date: 18 August 2017
 Calibration Due Date: 18 December 2017
 Received Condition: In good condition
 Returned Condition: In good condition

Calibration Procedure: ICP-I-078

Summary of Procedure: The Unit Under Test (UUT), a water meter was calibrated by measuring the actual output water using a volumetric graduated container.

Environmental Condition: 36.6°C / 48%RH

Calibration Results: (see the next page)

Calibration Notes:

Basis of Tolerance : ASTM C94/C94M-16
Max. Capacity : 65535 Liters / 5 L
Location : Batch Plant # 3, Rastanura

Standard Used to Calibrate Instrument:

Description	ACS Number	Cal Due Date	Traceability
Volumetric Graduated Container	ACS-KH-392-1	17 Sep 2017	195321 (NMCC, KSA / PTB, DE / NIST, USA)
Digital Thermo-Hygrometer	ACS-KH-464	02 Feb 2018	197254 (NIST, USA / NPL, UK / PTB, DE & NRC)

Calibrated By: 
 Calibration Tech. (Stamp)



Approved By: 
 Quality Manager

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شركة أحمد حسن المرهون وإخوانه للتجارة والمقاولات
Ahmed H. Al-Marhoon & Bros Co. For Trading & Contracting
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