





# **ACCREDITATION CERTIFICATE**

### LB-TEST-168

#### **Emirates International Accreditation Centre**

has accredited

#### **GEOCHEM MIDDLE EAST**

#### **OMAN LABORATORY**

Way # 5207, Building # 692, Block # 135

Postal Code 133, Ghala, P. O Box 1383

Al Khuwair, Muscat-Sultanate of Oman

In accordance with the requirements of

### ISO/IEC 17025:2017

General requirements for the competence of testing and calibration laboratories

to undertake the tests in the attached accreditation scope

This Accreditation is invalid without the attached accreditation scope and shall remain in force within the validity period printed below, subject to continuing compliance with the requirements of the accreditation criteria.

Validity: 22/03/2021 to 20/12/2023

Initial Accreditation Date: 21/12/2017





CHIEF EXECUTIVE OFFICER
APPROVAL





### **Environmental Testing**

LB-TEST-168

#### **Geochem Middle East**

### **Oman Laboratory**

Way # 5207, Building # 692, Block # 135

Postal Code 133, Ghala, P. O Box 1383

## Al Khuwair, Muscat-Sultanate of Oman

Type of Activity	Test Materials/Products	Test Name	Test Method
Microbiology	Swimming Pool water	Total aerobic count	APHA 9215 B
Microbiology	Swimming Pool water	Escherichia coli	APHA 9222 B
Microbiology	Swimming Pool water	Total Coliforms	АРНА 9222 В
Microbiology	Drinking water	Total Plate Count	APHA 9215 B
Microbiology	Drinking water	Escherichia coli	АРНА 9222 В
Microbiology	Drinking water	Fecal streptococci	APHA 9230 C
Microbiology	Drinking water	Pseudomonas aeruginosa	APHA 9213 E





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## Al Khuwair, Muscat-Sultanate of Oman

Type of Activity	Test Materials/Products	Test Name	Test Method
Microbiology	Drinking water	Total Coliforms	АРНА 9222 В
Microbiology	Waste water	Escherichia coli	АРНА 9222 В
Microbiology	Waste water	Fecal Coliforms	APHA 9222 D





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## Al Khuwair, Muscat-Sultanate of Oman

Type of Activity	Test Materials/Products	Test Name	Test Method
Microbiology	Water	Water Quality-	ISO 11731:2017
		Enumeration of	Matrix A : Procedure 5,7
		Legionella	Matrix B : Procedure
		Matrix A : -Water with	8,9,10
		low background.	Matrix C : Procedure
		Matrix B : - Water with	4,14
		High Background	
		Matrix C : - Water with	
		Extremely High	
		Background	
Chemical analyisis	Potable/ Drinking water	pH Value	APHA 4500 H+B
Chemical analyisis	Potable/ Drinking water	Conductivity	APHA 2510 B





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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis	Potable/ Drinking water	Odor	APHA 2150 B
Chemical analyisis	Potable/ Drinking water	Taste	АРНА 2160 В
Chemical analyisis	Potable/ Drinking water	Temperature,°C	АРНА 2550 В
Chemical analyisis	Potable/ Drinking water	Chloride as Cl	APHA 4500 Cl-B
Chemical analyisis	Potable/ Drinking water	Sulphate as SO <sub>4</sub>	APHA 4500 SO <sub>4</sub> <sup>-2</sup>
Chemical analyisis	Potable/ Drinking water	Total Hardness as CaCO₃	APHA 2340 C
Chemical analyisis	Potable/ Drinking water	Calcium Hardness as	АРНА 2340 В





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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis	Potable/ Drinking water	Total Dissolved Solids	АРНА 2540 С
Chemical analyisis	Potable/ Drinking water	Magnesium as Mg	АРНА 3120 В
Chemical analyisis	Potable/ Drinking water	Aluminum as Al	АРНА 3120 В
Chemical analyisis	Potable/ Drinking water	Antimony as Sb	APHA 3120 B
Chemical analyisis	Potable/ Drinking water	Arsenic as As	АРНА 3120 В
Chemical analyisis	Potable/ Drinking water	Barium as Ba	APHA 3120 B
Chemical analyisis	Potable/ Drinking water	Cadmium as Cd	APHA 3120 B





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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis	Potable/ Drinking water	Chromium as Cr	АРНА 3120 В
Chemical analyisis	Potable/ Drinking water	Copper as Cu	АРНА 3120 В
Chemical analyisis	Potable/ Drinking water	Selenium	АРНА 3120 В
Chemical analyisis	Potable/ Drinking water	Iron as Fe	APHA 3120 B
Chemical analyisis	Potable/ Drinking water	Lead as Pb	АРНА 3120 В
Chemical analyisis	Potable/ Drinking water	Manganese	APHA 3120 B
Chemical analyisis	Potable/ Drinking water	Molybdenum	АРНА 3120 В





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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis	Potable/ Drinking water	Nickel as Ni	АРНА 3120 В
Chemical analyisis	Waste water	рН	APHA 4500 H+B
Chemical analyisis	Waste water	Temperature	АРНА 2550 В
Chemical analyisis	Waste water	Chemical Oxygen Demand	APHA 5220
Chemical analyisis	Waste water	Total Suspended Solids	APHA 2540 D
Chemical analyisis	Waste water	Aluminum as Al	APHA 3120 B
Chemical analyisis	Waste water	Arsenic as As	АРНА 3120 В





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## Al Khuwair, Muscat-Sultanate of Oman

Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis	Waste water	Barium as Ba	АРНА 3120 В
Chemical analyisis	Waste water	Beryllium as Be	АРНА 3120 В
Chemical analyisis	Waste water	Boron	АРНА 3120 В
Chemical analyisis	Waste water	Cadmium as Cd	APHA 3120 B
Chemical analyisis	Waste water	Chromium as Cr	АРНА 3120 В
Chemical analyisis	Waste water	Cobalt as Co	APHA 3120 B
Chemical analyisis	Waste water	Copper	APHA 3120 B





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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis	Waste water	Iron as Fe	АРНА 3120 В
Chemical analyisis	Waste water	Lead as Pb	АРНА 3120 В
Chemical analyisis	Waste water	Lithium as Li	APHA 3120 B
Chemical analyisis	Waste water	Molybdenum as Mo	APHA 3120 B
Chemical analyisis	Waste water	Nickel as Ni	APHA 3120 B
Chemical analyisis	Waste water	Selenium as Se	APHA 3120 B
Chemical analyisis	Waste water	Silver as Ag	APHA 3120 B





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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis	Waste water	Total Chlorine	APHA 4500 Cl G
Chemical analyisis	Waste water	Vanadium as V	АРНА 3120 В
Chemical analyisis	Waste water	Zinc as Zn	АРНА 3120 В

Accreditation History			
Issue no.	Issue no. Details		
04	Renewal accreditation from EIAC	22-03-2021	
03	First issuance under the name of Emirates International Accreditation Centre 'EIAC' (Which was formerly known as DAC)	16-08-2020	
02	Change in Legionella test as per ISO 11731: 2017 Matrix A, Matrix B and Matrix C	15-07-2018	
01	Granted accreditation from Dubai Accreditation Center 'DAC'	21-12-2017	





## **Petroleum & Petrochemical Testing**

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Al Khuwair, Muscat-Sultanate of Oman

Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis	Lube Oil/ Engine Oil/	Determination of ASTM	ASTM D1500
	Hydraulic Oil	Color of Petroleum	
		Products (ASTM Color	
		Scale)	
Chemical analyisis	Lube Oil/ Engine Oil/	Determination of Acid	ASTM D974
	Hydraulic Oil	and Base Number by	
		Color-Indicator Titration	
Chemical analyisis	Lube Oil/ Engine Oil/	Determination of	ASTM D874
	Hydraulic Oil	Sulfated Ash from	
		Lubricating Oils and	
		Additives	





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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis	Lube Oil/ Engine Oil/ Hydraulic Oil	Determination of Ash from Petroleum Products	ASTM D482
Chemical analyisis	Lube Oil/ Engine Oil/ Hydraulic Oil	Determination of Density, Relative Density, or API Gravity of Crude Petroleum and Liquid Petroleum Products by Hydrometer Method	ASTM D1298
Chemical analyisis	Lube Oil/ Engine Oil/ Hydraulic Oil	Determination of Flash and Fire Points by Cleveland Open Cup Tester	ASTM D92





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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis	Lube Oil/ Engine Oil/	Determination of Flash	ASTM D93
	Hydraulic Oil	Point by Pensky-	
		Martens Closed Cup	
		Tester	
Chemical analyisis	Lube Oil/ Engine Oil/	Determination of	ASTM D445
	Hydraulic Oil	Kinematic Viscosity of	
		Transparent and	
		Opaque Liquids (and	
		Calculation of Dynamic	
		Viscosity)	
Chemical analyisis	Lube Oil/ Engine Oil/	Determination of	ASTM D2270
	Hydraulic Oil	Calculating Viscosity	
		Index from Kinematic	
		Viscosity at 40 °C and	
		100 °C	





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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis	Lube Oil/ Engine Oil/ Hydraulic Oil	Determination of coding the level of contamination by solid particles	ISO 4406
Chemical analyisis	Lube Oil/ Engine Oil/ Hydraulic Oil	Determination of Multielement Determination of Used and Unused Lubricating Oils and Base Oils by Inductively Coupled Plasma Atomic Emission Spectrometry (ICP-AES)	ASTM D5185





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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis	Transformer Oil	Determination of Water	ASTM D95
		in Petroleum Products	
		and Bituminous	
		Materials by Distillation	
Chemical analyisis	Transformer Oil	Determination of	ASTM D6304
		Determination of Water	
		in Petroleum Products,	
		Lubricating Oils, and	
		Additives by	
		Coulometric Karl Fischer	
		Titration	





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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis	Transformer Oil	Determination of ASTM Color of Petroleum Products (ASTM Color Scale)	ASTM D1500
Chemical analyisis	Transformer Oil	Determination of Density, Relative Density, or API Gravity of Crude Petroleum and Liquid Petroleum Products by Hydrometer	ASTM D1298
Chemical analyisis	Transformer Oil	Determination of Flash and Fire Points by Cleveland Open Cup Tester	ASTM D92





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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis		Determination of Interfacial Tension of Oil Against Water by the Ring Method	ASTM D971
Chemical analyisis	Transformer Oil	Determination of Acid and Base Number by Color-Indicator Titration	ASTM D974
Chemical analyisis	Transformer Oil	Determination of Particle Count in Mineral Insulating Oil Using Automatic Optical Particle Counters	ASTM D6786





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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis	Transformer Oil	Determination of Water	ASTM D1533
		in Insulating Liquids by	
		Coulometric Karl Fischer	
		Titration	
Chemical analyisis	Transformer Oil	Determination of	ASTM D3612-C
		Analysis of Gases	
		Dissolved in Electrical	
		Insulating Oil by Gas	
		Chromatography	
Chemical analyisis	Transformer Oil	Determination of	ASTM D445
		Kinematic Viscosity of	
		Transparent and	
		Opaque Liquids (and	
		Calculation of Dynamic	
		Viscositv)	





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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis	Diesel, Fuel Oil	Determination of ASTM	ASTM D1500/IP 196
	(Residual& Marine)	Color of Petroleum	
		Products (ASTM Color	
		Scale)	
Chemical analyisis	Diesel, Fuel Oil	Determination of Acid	ASTM D974/IP 123
	(Residual& Marine)	and Base Number by	
		Color-Indicator Titration	
Chemical analyisis	Diesel, Fuel Oil	Determination of	ASTM D874/ IP 163
	(Residual& Marine)	Sulfated Ash from	
		Lubricating Oils and	
		Additives	
Chemical analyisis	Diesel, Fuel Oil	Determination of ash	ISO 6245
	(Residual& Marine)		





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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis	Diesel, Fuel Oil	Determination of Water	ASTM D95
	(Residual& Marine)	in Petroleum Products	
		and Bituminous	
		Materials by Distillation	
Chemical analyisis	Diesel, Fuel Oil	Petroleum products and	ISO 3733
	(Residual& Marine)	bituminous materials —	
		Determination of water	
		— Distillation method	





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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis	Diesel, Fuel Oil	Determination of	ASTM D1298/IP 160
	(Residual& Marine)	Density, Relative	
		Density, or API Gravity	
		of Crude Petroleum and	
		Liquid Petroleum	
		Products by Hydrometer	
Chemical analyisis	Diesel, Fuel Oil	Crude petroleum and	ISO 3675
	(Residual& Marine)	liquid petroleum	
		products — Laboratory	
		determination of density	
		— Hydrometer method	





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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis	Diesel, Fuel Oil	Determination of Flash	ASTM D93
	(Residual& Marine)	Point by Pensky-	
		Martens Closed Cup	
		Tester	
Chemical analyisis	Diesel, Fuel Oil	Determination of flash	ISO 2719
	(Residual& Marine)	point — Pensky-	
		Martens closed cup	
		method	
Chemical analyisis	Diesel, Fuel Oil	Determination of	ASTM D445
	(Residual& Marine)	Kinematic Viscosity of	
		Transparent and	
		Opaque Liquids (and	
		Calculation of Dynamic	
		Viscosity)	





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Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis	Diesel, Fuel Oil	Petroleum products —	ISO 3104/IP71
	(Residual& Marine)	Transparent and opaque	
		liquids — Determination	
		of kinematic viscosity	
		and calculation of	
		dynamic viscosity	

Accreditation History				
Issue no.	Details	Date		
03	Renewal accreditation from EIAC	22-03-2021		
	First issuance under the name of EIAC (Which was formerly known as DAC)	16-08-2020		
01	Granted accreditation from Dubai Accreditation Center 'DAC'	21-12-2017		





### **Food Testing**

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## Al Khuwair, Muscat-Sultanate of Oman

Type of Activity	Test Materials/Products	Test Name	Test Method
Chemical analyisis		Solids/ Loss on drying	AOAC 925.10
		Ash	AOAC 923.03
		Protein	AOAC 920.87

Accreditation History				
Issue no.	Details	Date		
03	Renewal accreditation from EIAC	22-03-2021		
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01	Granted accreditation from Dubai Accreditation Center 'DAC'	21-12-2017		