



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
(IMO 889648) MILLER SHIPPING LTD
 Machine Id
MV WESTERN TUGGER
 Component
1 Genset
 Fluid
IRVING IDO UNIVERSAL SAE 10W30 (11 LTR)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample
 Comment: Oil used is Irving 10W-30 CK-4)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		OF0001093	---	---
Sample Date		Client Info		06 Jun 2024	---	---
Machine Age	hrs	Client Info		7675	---	---
Oil Age	hrs	Client Info		5	---	---
Filter Age	hrs	Client Info		5	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		Not Changd	---	---
Sample Status				NORMAL	---	---

WEAR

All component wear rates are normal.

PQ		ASTM D8184*		0	---	---
Iron	ppm	ASTM D5185(m)	>50	13	---	---
Chromium	ppm	ASTM D5185(m)	>4	2	---	---
Nickel	ppm	ASTM D5185(m)	>2	0	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)	>5	0	---	---
Aluminum	ppm	ASTM D5185(m)	>12	2	---	---
Lead	ppm	ASTM D5185(m)	>17	0	---	---
Copper	ppm	ASTM D5185(m)	>70	1	---	---
Tin	ppm	ASTM D5185(m)	>15	0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

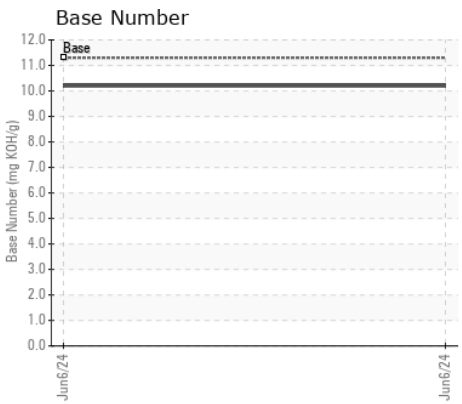
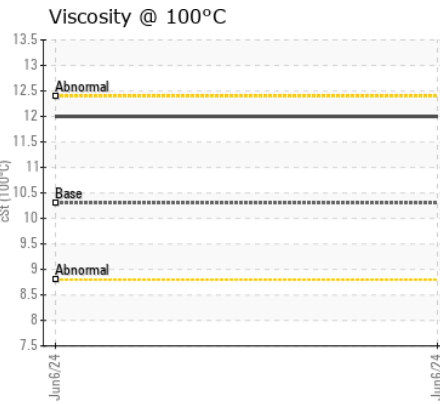
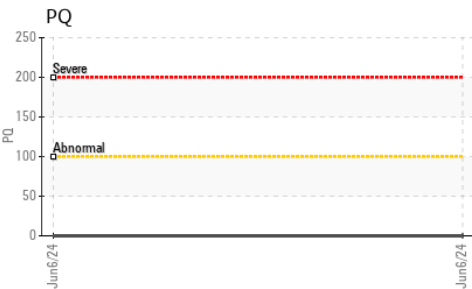
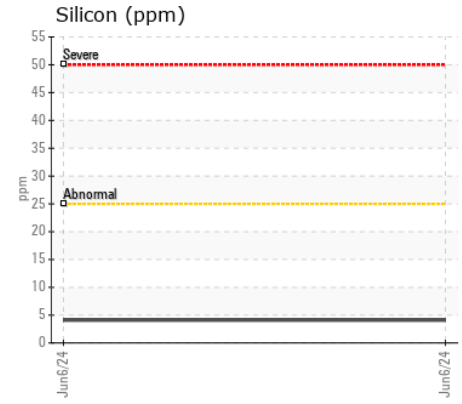
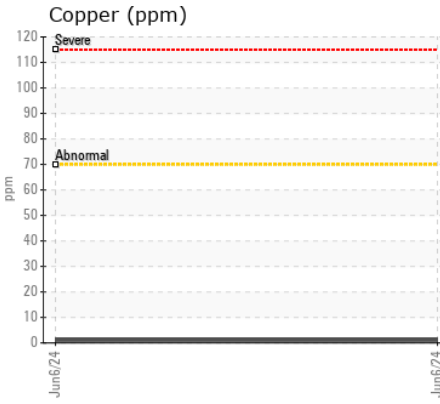
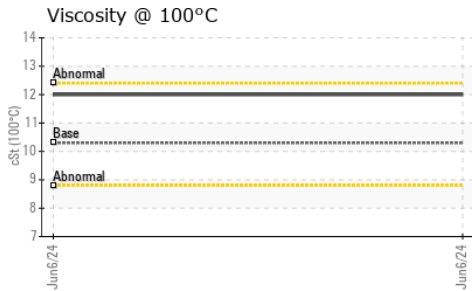
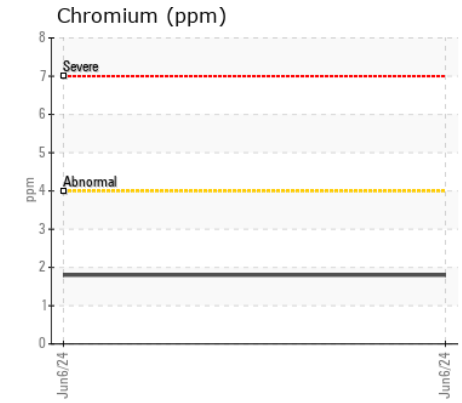
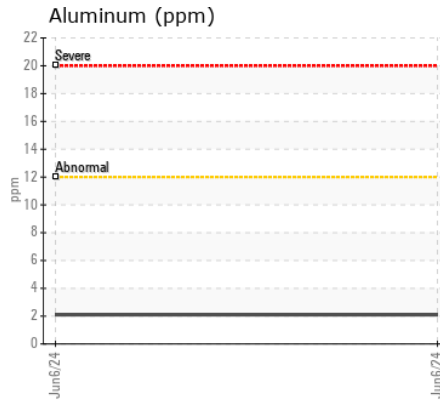
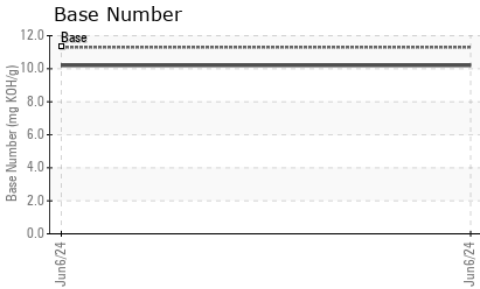
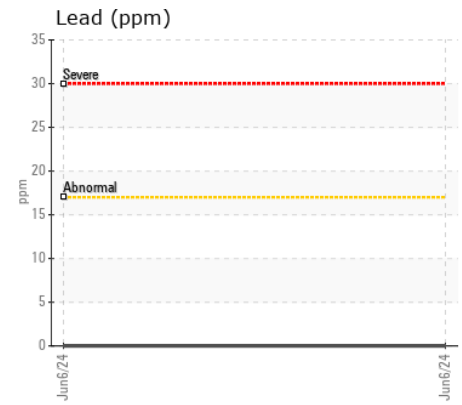
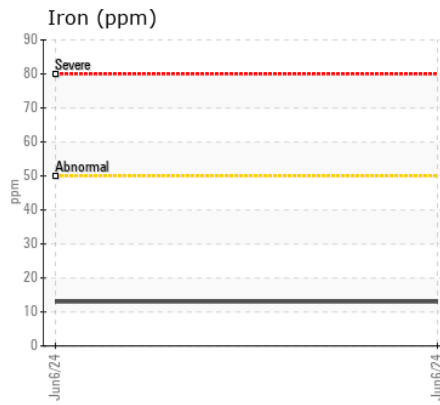
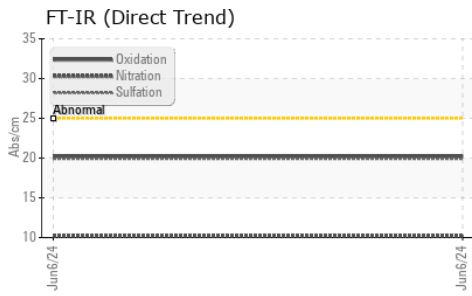
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	4	---	---
Potassium	ppm	ASTM D5185(m)	>20	<1	---	---
Fuel		WC Method	>4.0	<1.0	---	---
Water		WC Method	>0.1	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*		0	---	---
Nitration	Abs/cm	ASTM D7624*	>20	10.2	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.9	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.1	NEG	---	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		1	---	---
Boron	ppm	ASTM D5185(m)		67	---	---
Barium	ppm	ASTM D5185(m)		0	---	---
Molybdenum	ppm	ASTM D5185(m)		8	---	---
Manganese	ppm	ASTM D5185(m)		<1	---	---
Magnesium	ppm	ASTM D5185(m)		14	---	---
Calcium	ppm	ASTM D5185(m)		2101	---	---
Phosphorus	ppm	ASTM D5185(m)		917	---	---
Zinc	ppm	ASTM D5185(m)	1300	1034	---	---
Sulfur	ppm	ASTM D5185(m)		3361	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	20.2	---	---
Base Number (BN)	mg KOH/g	ASTM D2896*	11.3	10.20	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	10.3	12.0	---	---



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : OF0001093
Lab Number : 02641633
Unique Number : 5799172
Test Package : MOB 2 (Additional Tests: PQ, Visual)

Received : 13 Jun 2024
Tested : 14 Jun 2024
Diagnosed : 14 Jun 2024 - Kevin Marson

Oil Filtration Solutions Ltd.
 PO BOX 16125
 CONCEPTION BAY SOUTH, NL
 CA A1X 2E2
 Contact: BILL BUTLER
 BBUTLER@OILFILTRATIONSOLUTIONS.COM
 T: (709)834-8433
 F: (709)834-8435

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.