



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
HILL ENTERPRISES LTD
 Machine Id
FISHING VESSEL M/V ATLANTIC TITAN
 Component
3 Genset
 Fluid
SHELL ROTELLA T 15W40 (25 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		OF0000480	OF0000473	OF0000483
Sample Date		Client Info		15 Mar 2024	30 Jul 2022	16 Mar 2022
Machine Age	hrs	Client Info		0	877	498
Oil Age	hrs	Client Info		447	379	2
Filter Age	hrs	Client Info		447	129	2
Oil Changed		Client Info		N/A	Not Changd	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

PQ		ASTM D8184*		0	0	0
Iron	ppm	ASTM D5185(m)	>50	9	5	1
Chromium	ppm	ASTM D5185(m)	>4	0	0	0
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>5	0	0	0
Aluminum	ppm	ASTM D5185(m)	>12	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>17	0	0	0
Copper	ppm	ASTM D5185(m)	>70	17	<1	<1
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

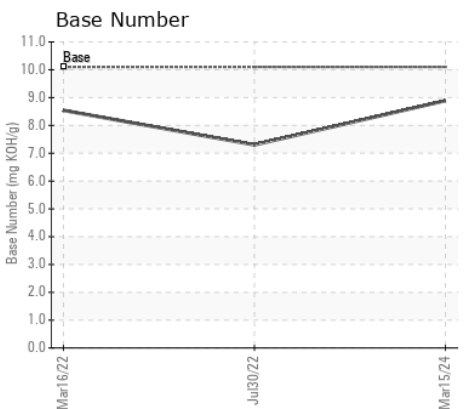
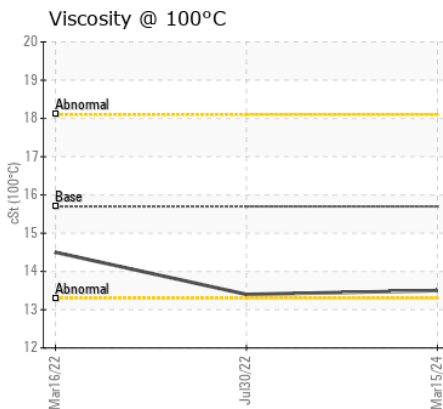
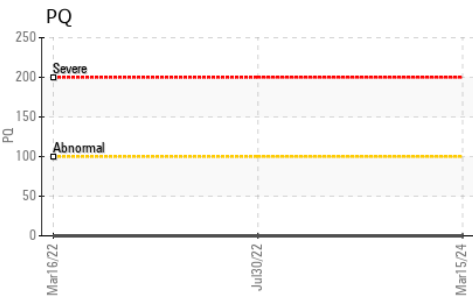
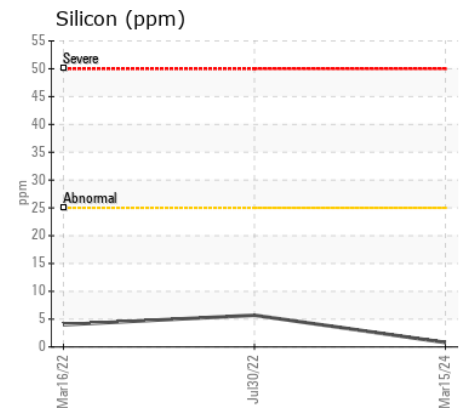
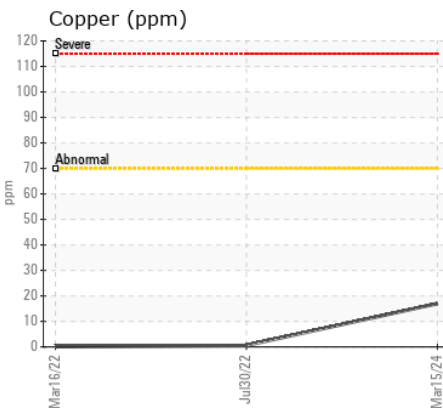
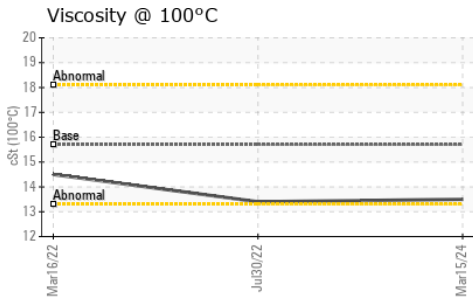
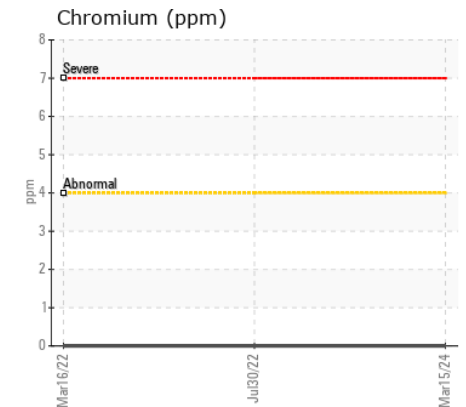
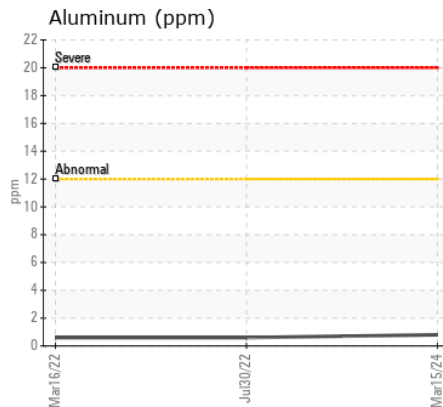
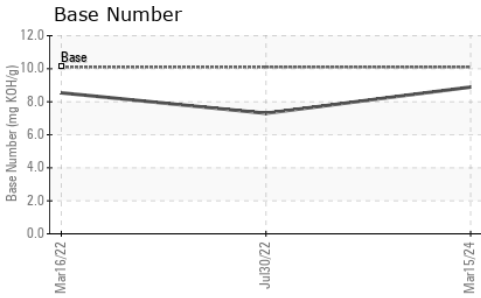
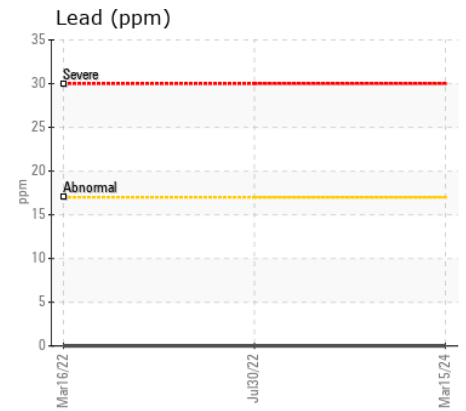
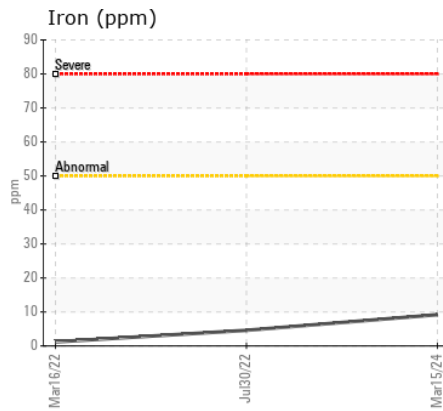
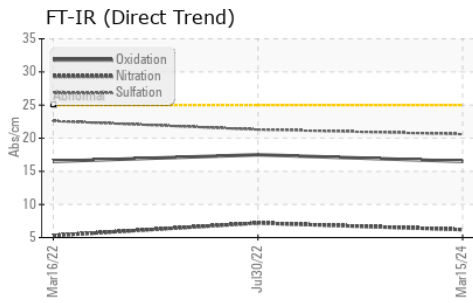
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<1	6	4
Potassium	ppm	ASTM D5185(m)	>20	4	2	7
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*	>20	6.2	7.2	5.3
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.6	21.3	22.6
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	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	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)		2	1	2
Boron	ppm	ASTM D5185(m)	35	125	134	174
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	6	<1	<1
Manganese	ppm	ASTM D5185(m)	0	0	<1	0
Magnesium	ppm	ASTM D5185(m)	10	118	12	12
Calcium	ppm	ASTM D5185(m)	2340	2122	2186	1991
Phosphorus	ppm	ASTM D5185(m)	1110	1011	1011	980
Zinc	ppm	ASTM D5185(m)	1210	1168	1108	1074
Sulfur	ppm	ASTM D5185(m)	3890	2909	3000	2882
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.5	17.5	16.5
Base Number (BN)	mg KOH/g	ASTM D2896*	10.1	8.89	7.30	8.54
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	13.5	13.4	14.5



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : OF0000480 **Received** : 30 Apr 2024
Lab Number : 02632227 **Tested** : 30 Apr 2024
Unique Number : 5773380 **Diagnosed** : 30 Apr 2024 - Wes Davis
Test Package : MOB 2 (Additional Tests: PQ, Visual)

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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.