



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL

Area
HILL ENTERPRISES LTD
 Machine Id
FISHING VESSEL M/V ATLANTIC TITAN
 Component
1 Diesel Engine
 Fluid
SHELL ROTELLA T 15W40 (110 LTR)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor. (Customer Sample Comment: G2F Installed.)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		OF0000482	---	---
Sample Date		Client Info		16 Mar 2022	---	---
Machine Age	hrs	Client Info		390	---	---
Oil Age	hrs	Client Info		200	---	---
Filter Age	hrs	Client Info		200	---	---
Oil Changed		Client Info		Not Changed	---	---
Filter Changed		Client Info		Not Changed	---	---
Sample Status				MARGINAL	---	---

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>80	5	---	---
Chromium	ppm	ASTM D5185(m)	>6	0	---	---
Nickel	ppm	ASTM D5185(m)	>2	1	---	---
Titanium	ppm	ASTM D5185(m)	>2	0	---	---
Silver	ppm	ASTM D5185(m)	>2	3	---	---
Aluminum	ppm	ASTM D5185(m)	>20	1	---	---
Lead	ppm	ASTM D5185(m)	>95	5	---	---
Copper	ppm	ASTM D5185(m)	>85	19	---	---
Tin	ppm	ASTM D5185(m)	>9	<1	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---

CONTAMINATION

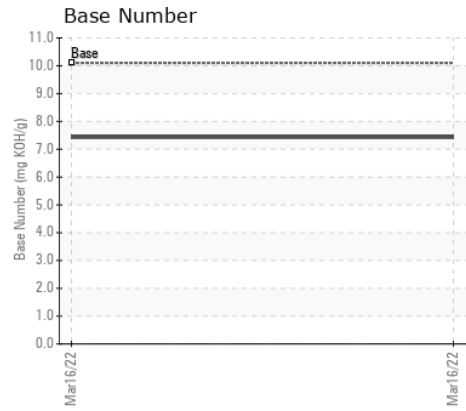
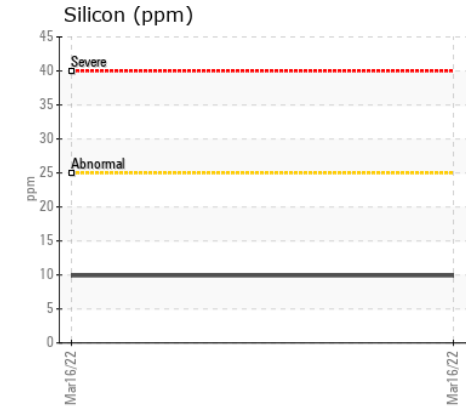
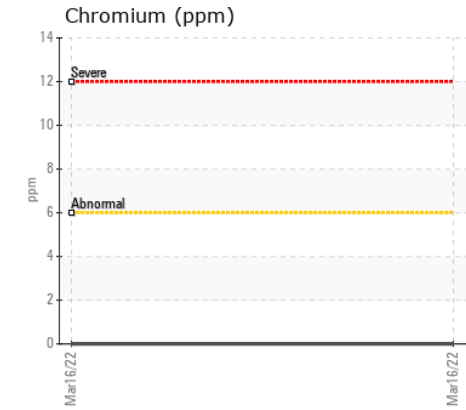
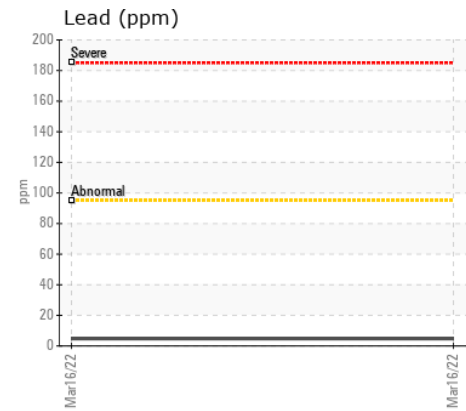
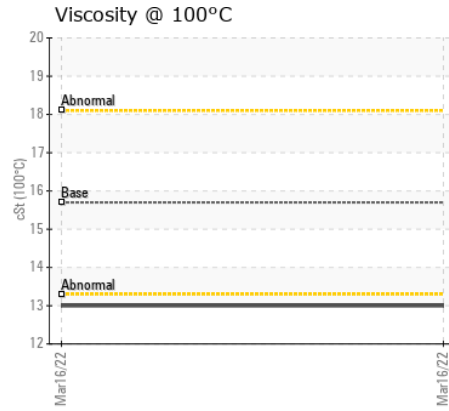
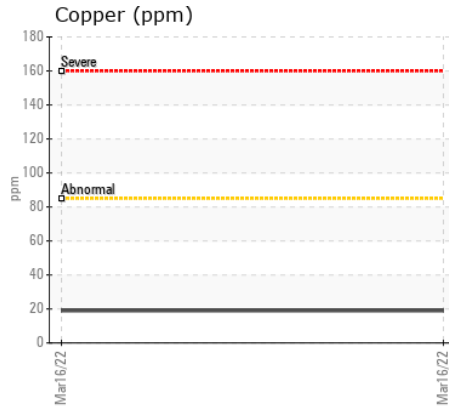
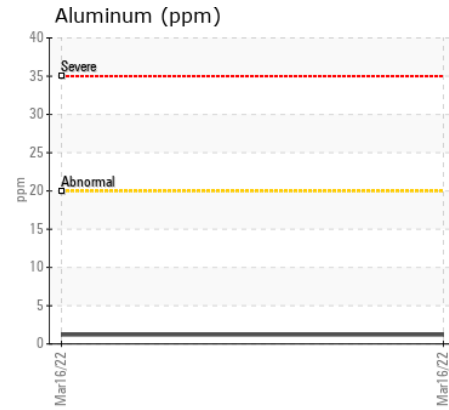
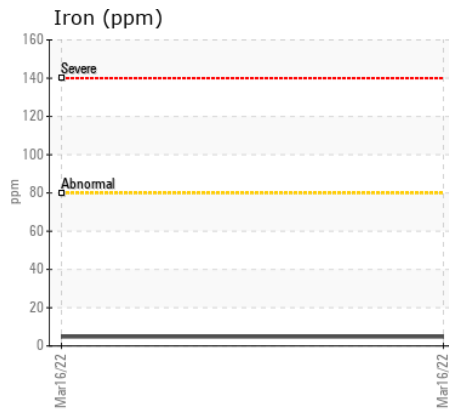
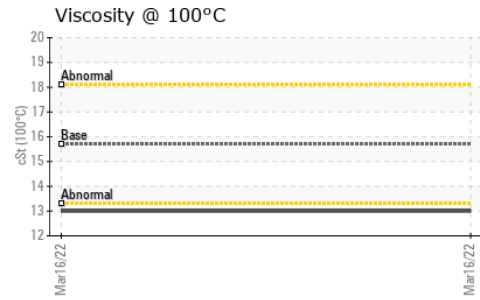
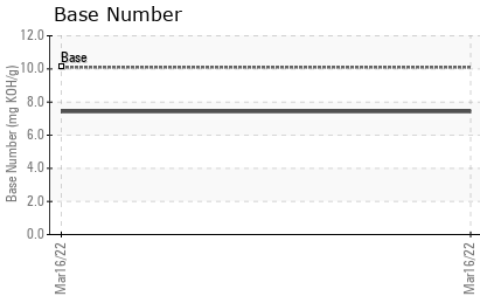
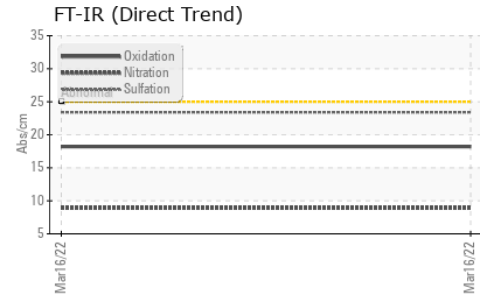
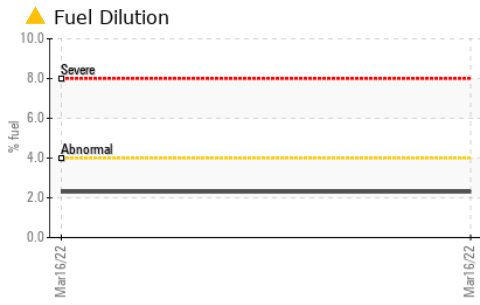
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>25	10	---	---
Potassium	ppm	ASTM D5185(m)	>20	0	---	---
Fuel	%	ASTM D7593*	>4.0	▲ 2.3	---	---
Water		WC Method	>0.1	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	ASTM D7844*		0	---	---
Nitration	Abs/cm	ASTM D7624*	>20	8.9	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	23.4	---	---
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)		3	---	---
Boron	ppm	ASTM D5185(m)	35	203	---	---
Barium	ppm	ASTM D5185(m)	0	<1	---	---
Molybdenum	ppm	ASTM D5185(m)	0	5	---	---
Manganese	ppm	ASTM D5185(m)	0	<1	---	---
Magnesium	ppm	ASTM D5185(m)	10	12	---	---
Calcium	ppm	ASTM D5185(m)	2340	2339	---	---
Phosphorus	ppm	ASTM D5185(m)	1110	1060	---	---
Zinc	ppm	ASTM D5185(m)	1210	1157	---	---
Sulfur	ppm	ASTM D5185(m)	3890	3464	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	18.2	---	---
Base Number (BN)	mg KOH/g	ASTM D2896*	10.1	7.43	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.7	13.0	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : OF0000482 **Received** : 13 Jun 2022
Lab Number : **02494375** **Tested** : 14 Jun 2022
Unique Number : 5411334 **Diagnosed** : 14 Jun 2022 - Kevin Marson
Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

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.