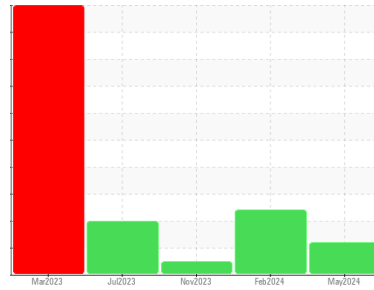




OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL



Machine Id
LIM_MLU4 LIM_MLU4
 Component
Outboard Pump
 Fluid
{not provided} (--- GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

Moderate concentration of visible metal present. All component wear rates are normal.

Contamination

The water content is negligible. There is no indication of any contamination in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			RP0032523	RP0039860	RP0032548
Sample Date	Client Info			29 May 2024	29 Feb 2024	14 Nov 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	48	▲ 99	5
Chromium	ppm	ASTM D5185m	>5	<1	<1	0
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m	>3	0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>7	0	<1	<1
Lead	ppm	ASTM D5185m	>12	3	5	0
Copper	ppm	ASTM D5185m	>30	23	▲ 48	8
Tin	ppm	ASTM D5185m	>9	4	▲ 10	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0

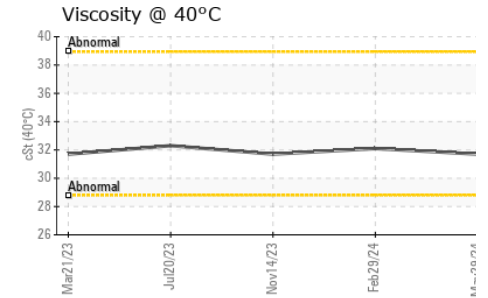
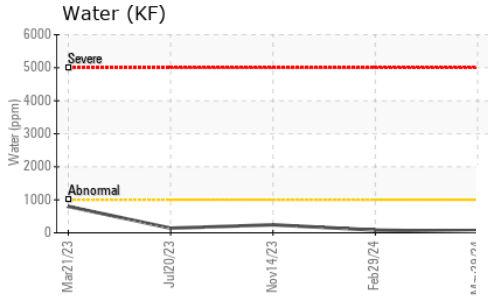
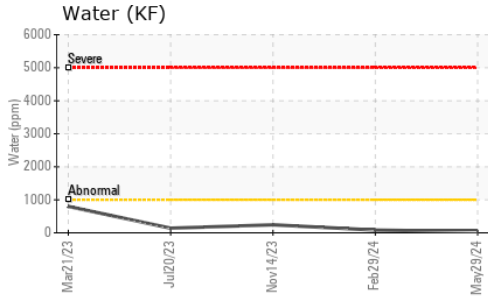
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	1	0
Magnesium	ppm	ASTM D5185m		33	46	66
Calcium	ppm	ASTM D5185m		<1	<1	0
Phosphorus	ppm	ASTM D5185m		3	1	0
Zinc	ppm	ASTM D5185m		6	0	0

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>60	1	3	<1
Sodium	ppm	ASTM D5185m		<1	0	2
Potassium	ppm	ASTM D5185m	>20	0	0	0
Water	%	ASTM D6304	>.1	0.004	0.008	0.024
ppm Water	ppm	ASTM D6304	>1000	40	83	243

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.26	0.28	0.34

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	▲ MODER	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

OIL ANALYSIS REPORT



FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	31.7	32.1	31.7

SAMPLE IMAGES	method	limit/base	current	history1	history2
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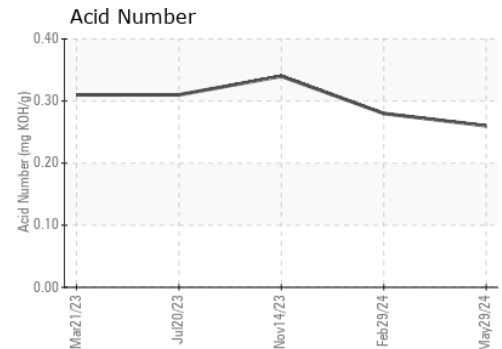
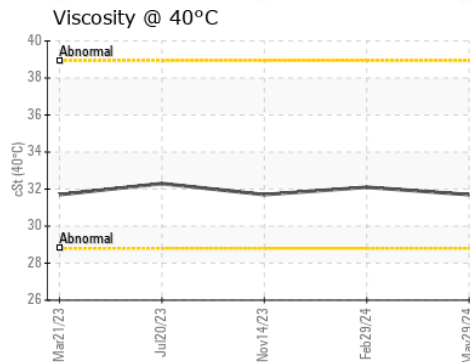
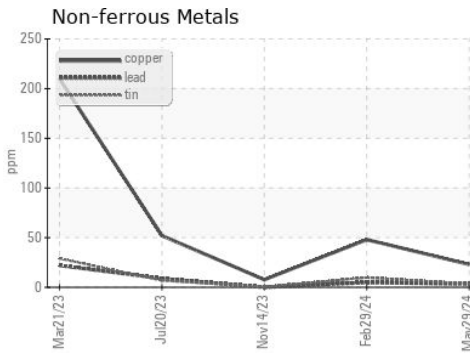
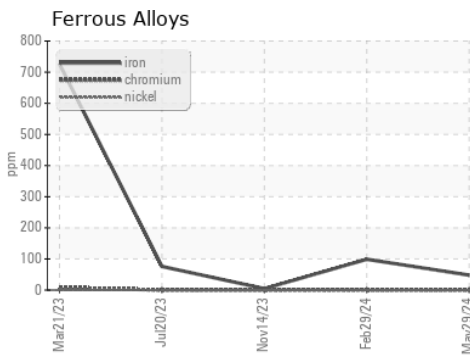
Color



Bottom



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0032523
Lab Number : 06202855
Unique Number : 11070316
Test Package : IND 2

Received : 07 Jun 2024
Tested : 10 Jun 2024
Diagnosed : 10 Jun 2024 - Don Baldrige

ENERGY TRANSFER - LIMA
 1520 BUCKEYE RD
 LIMA, OH
 US 45804

Contact: ANDREW WYDERKA
 andrew.wyderka@energytransfer.com

T: (419)618-1505

F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)