



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CHA
Component
Starboard Reduction Gear
Fluid
Reduction Gear Oil (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW06017497	MW05878236	MW05843483
Sample Date		Client Info		23 Nov 2023	19 Jun 2023	09 May 2023
Machine Age	hrs	Client Info		53763	52222	51354
Oil Age	hrs	Client Info		1540	868	1610
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	2	2	2
Chromium	ppm	ASTM D5185m	>10	<1	<1	0
Nickel	ppm	ASTM D5185m	>10	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	0	0
Lead	ppm	ASTM D5185m	>100	0	0	0
Copper	ppm	ASTM D5185m	>50	1	<1	<1
Tin	ppm	ASTM D5185m	>10	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

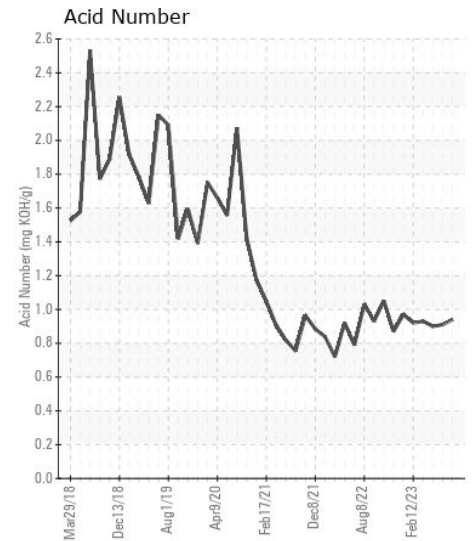
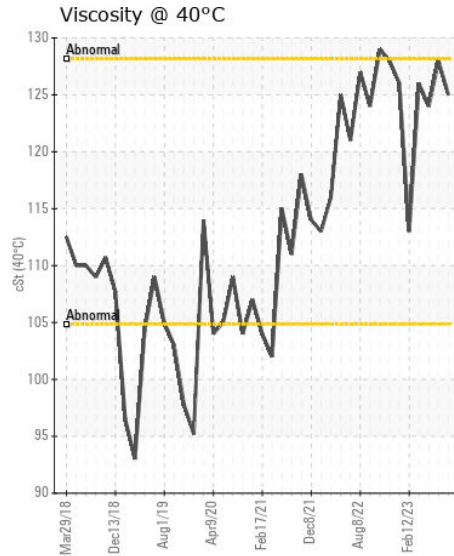
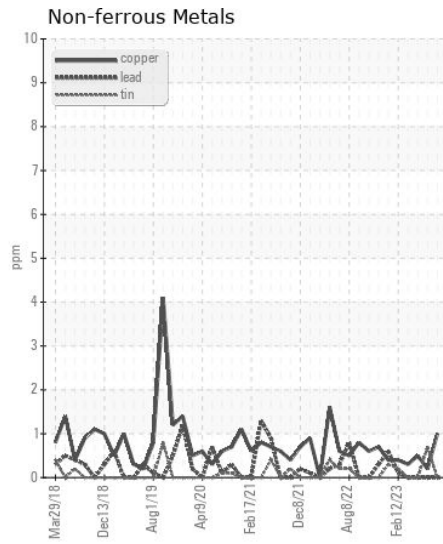
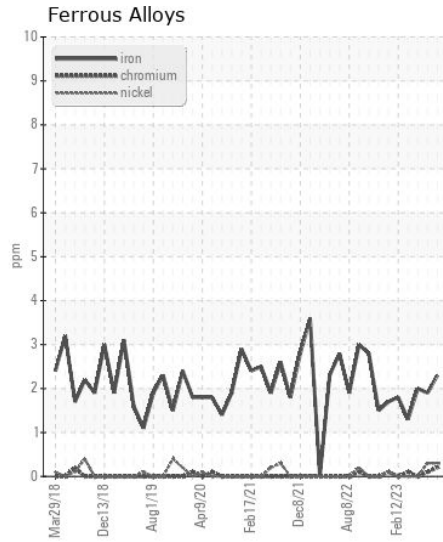
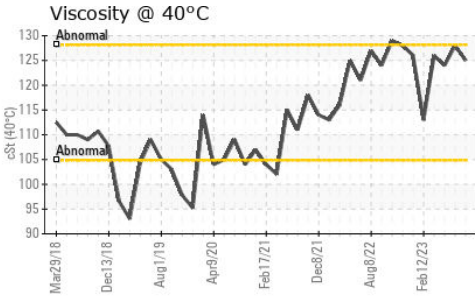
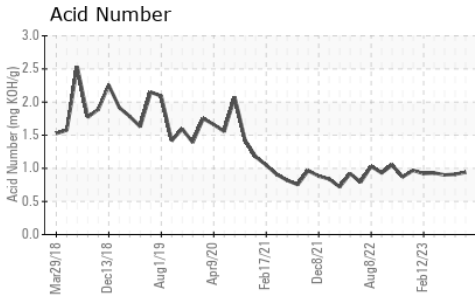
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	4	4	3
Potassium	ppm	ASTM D5185m	>20	2	3	2
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
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	>0.1	NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		0	2	<1
Boron	ppm	ASTM D5185m		289	293	285
Barium	ppm	ASTM D5185m		0	0	2
Molybdenum	ppm	ASTM D5185m		32	31	37
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		54	71	88
Calcium	ppm	ASTM D5185m		2170	2322	2318
Phosphorus	ppm	ASTM D5185m		591	750	731
Zinc	ppm	ASTM D5185m		771	846	841
Sulfur	ppm	ASTM D5185m		3056	3531	2871
Acid Number (AN)	mg KOH/g	ASTM D8045		0.94	0.91	0.90
Visc @ 40°C	cSt	ASTM D445		125	128	124



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW06017497
Lab Number : 06017497
Unique Number : 10756641
Test Package : MAR 2

Received : 24 Nov 2023
Tested : 28 Nov 2023
Diagnosed : 29 Nov 2023 - Jonathan Hester

ILLINOIS MARINE TOWING
 PO BOX 391
 LEMONT, IL
 US 60439

Contact: RHETT DANIEL
 rdaniel@imtowing.com

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)

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