



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
SIGNET CHALLENGER
Component
Starboard Reduction Gear
Fluid
CHEVRON MEROPA 150 (317 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0051961	MW0051954	MW0051870
Sample Date		Client Info		22 May 2024	05 Mar 2024	30 Dec 2023
Machine Age	hrs	Client Info		27523	27303	27150
Oil Age	hrs	Client Info		0	27303	1000
Filter Age	hrs	Client Info		0	0	500
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	20	24	23
Chromium	ppm	ASTM D5185m	>10	1	<1	<1
Nickel	ppm	ASTM D5185m	>10	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		<1	0	0
Aluminum	ppm	ASTM D5185m	>25	1	3	<1
Lead	ppm	ASTM D5185m	>100	<1	2	<1
Copper	ppm	ASTM D5185m	>50	7	12	7
Tin	ppm	ASTM D5185m	>10	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

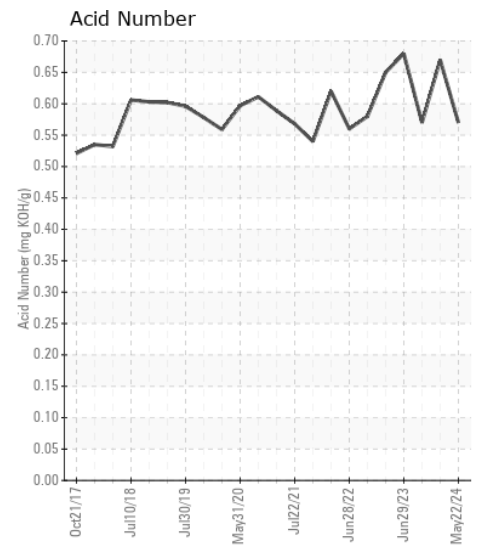
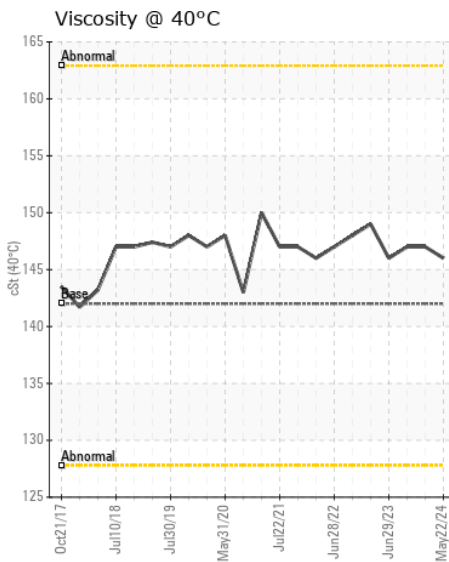
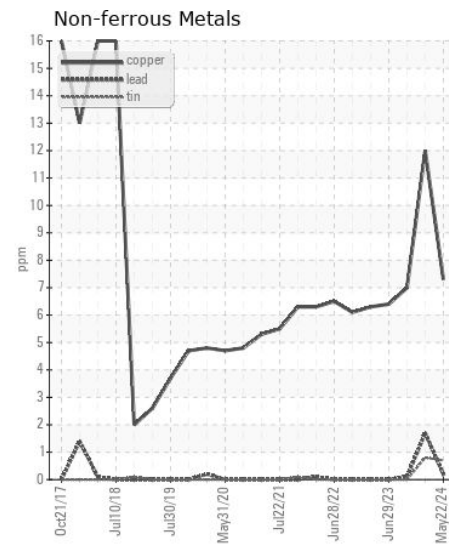
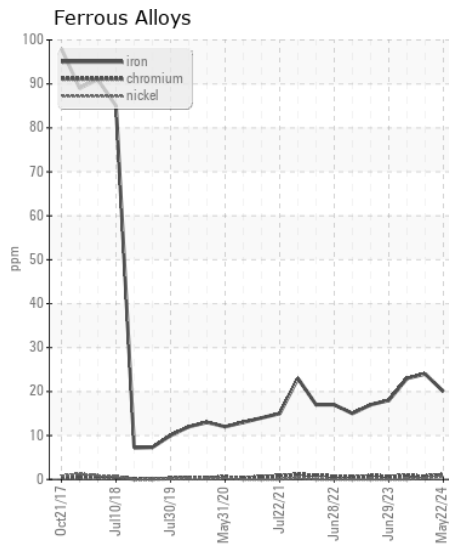
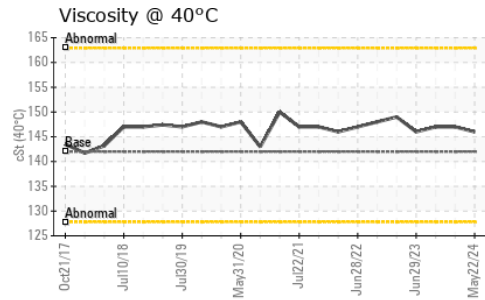
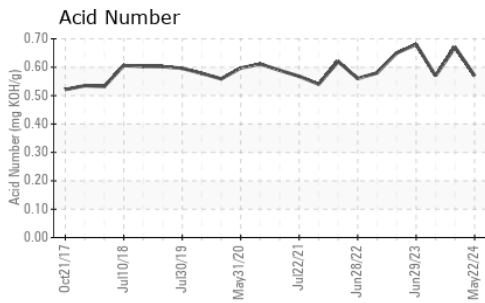
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	2	2	1
Potassium	ppm	ASTM D5185m	>20	2	2	2
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	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		1	0	3
Boron	ppm	ASTM D5185m		22	12	9
Barium	ppm	ASTM D5185m		2	1	0
Molybdenum	ppm	ASTM D5185m		2	<1	0
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		3	3	<1
Calcium	ppm	ASTM D5185m		105	77	17
Phosphorus	ppm	ASTM D5185m		286	230	232
Zinc	ppm	ASTM D5185m		26	22	6
Sulfur	ppm	ASTM D5185m		10297	9698	9002
Acid Number (AN)	mg KOH/g	ASTM D8045		0.57	0.67	0.57
Visc @ 40°C	cSt	ASTM D445	142	146	147	147



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0051961
Lab Number : 06196845
Unique Number : 11058968
Test Package : MAR 2

Received : 31 May 2024
Tested : 03 Jun 2024
Diagnosed : 03 Jun 2024 - Wes Davis

MARITIME COMPANY
 3802 PORT RIVER RD
 PASCAGOULA, MS
 US 39567

Contact: MARK KOPSYWA
 mark.kopszywa@signetmaritime.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)

T:
 F: (228)769-0629