



WEAR	<b>ATTENTION</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**PATSY J**  
Component  
**Starboard Genset**  
Fluid  
**CHEVRON DELO 400 SAE 40 (6 GAL)**

**RECOMMENDATION**

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0060483</b>	MW0060638	MW0060499
Sample Date		Client Info		<b>26 Jan 2024</b>	14 Sep 2023	06 Jul 2023
Machine Age	hrs	Client Info		<b>17074</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ATTENTION</b>	NORMAL	NORMAL

**WEAR**

An increase in the copper level is noted. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>8</b>	3	4
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>16</b>	14	11
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>12	<b>2</b>	3	2
Lead	ppm	ASTM D5185m	>17	<b>4</b>	<1	0
Copper	ppm	ASTM D5185m	>70	<b>▲ 65</b>	<1	0
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

There is no indication of any contamination in the oil.

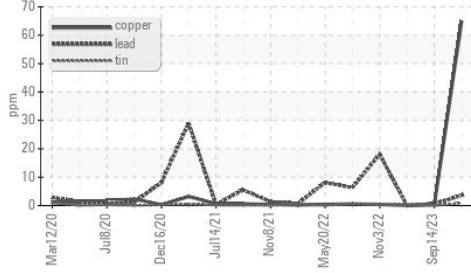
Silicon	ppm	ASTM D5185m	>25	<b>6</b>	5	5
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	2	3
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844		<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.2</b>	8.0	10.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.6</b>	18.0	17.2
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

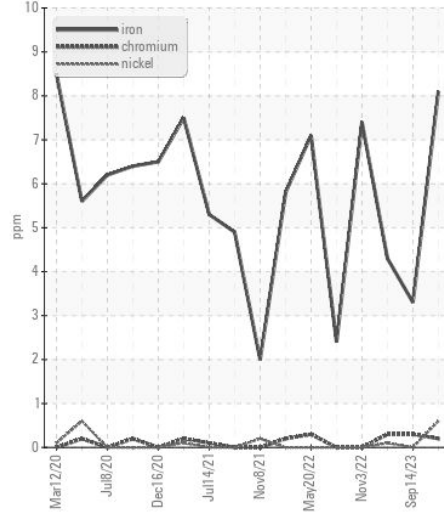
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>5</b>	2	2
Boron	ppm	ASTM D5185m		<b>49</b>	89	165
Barium	ppm	ASTM D5185m		<b>13</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>32</b>	43	59
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>635</b>	737	786
Calcium	ppm	ASTM D5185m		<b>1413</b>	1614	1750
Phosphorus	ppm	ASTM D5185m	1160	<b>576</b>	706	772
Zinc	ppm	ASTM D5185m	1270	<b>726</b>	876	902
Sulfur	ppm	ASTM D5185m		<b>3008</b>	3709	4209
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.2</b>	13.3	12.7
Base Number (BN)	mg KOH/g	ASTM D2896	10.2	<b>6.1</b>	7.6	7.0
Visc @ 100°C	cSt	ASTM D445	14.9	<b>13.6</b>	13.8	13.8

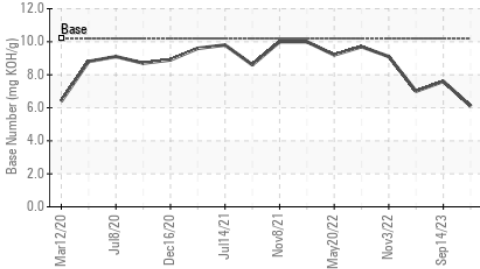
▲ Non-ferrous Metals



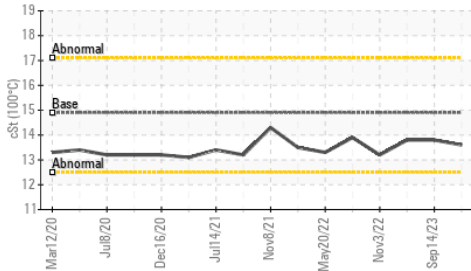
Ferrous Alloys



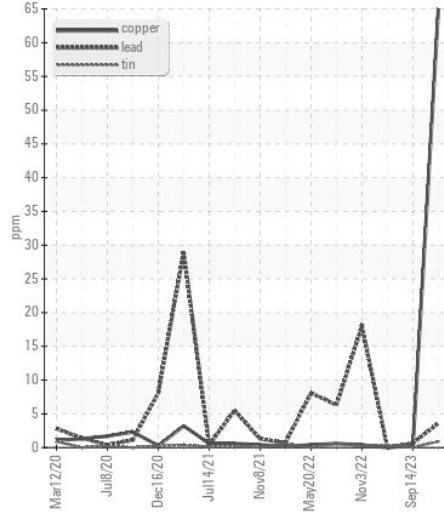
Base Number



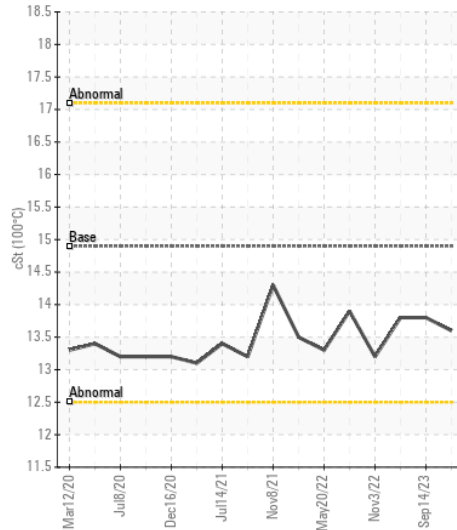
Viscosity @ 100°C



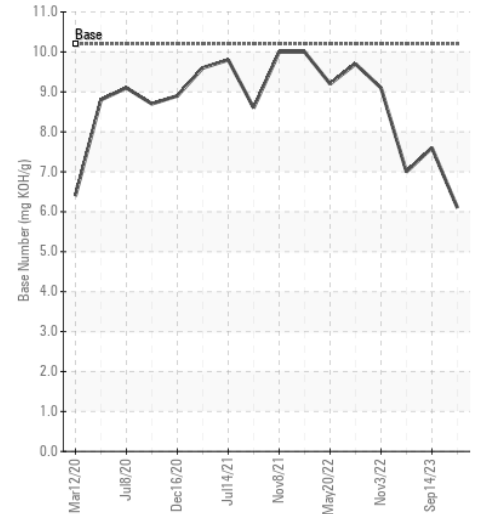
▲ Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : MW0060483

Lab Number : 06085754

Unique Number : 10873199

Test Package : MAR 2

Received : 12 Feb 2024

Tested : 12 Feb 2024

Diagnosed : 13 Feb 2024 - Don Baldrige

ERGON MARINE

100 LEE STREET

VICKSBURG, MS

US 39180

Contact: JOHNNY GERACHE

johnny.gerache@ergon.com

T: (601)636-6552

F: (601)636-6173

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)