



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

Machine Id  
**SIGNET CHALLENGER**

Component  
**Starboard Genset**

Fluid  
**CHEVRON DELO 400 MULTIGRADE 15W40 (4 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0051875</b>	MW0051869	MW0051949
Sample Date		Client Info		<b>05 Mar 2024</b>	30 Dec 2023	29 Jun 2023
Machine Age	hrs	Client Info		<b>12839</b>	12762	12749
Oil Age	hrs	Client Info		<b>82</b>	500	350
Filter Age	hrs	Client Info		<b>82</b>	500	350
Oil Changed		Client Info		<b>Not Changd</b>	Changed	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Changed	Not Changd
Sample Status				<b>NORMAL</b>	ABNORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>5</b>	32	14
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>12	<b>3</b>	3	2
Lead	ppm	ASTM D5185m	>17	<b>&lt;1</b>	8	4
Copper	ppm	ASTM D5185m	>70	<b>1</b>	5	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

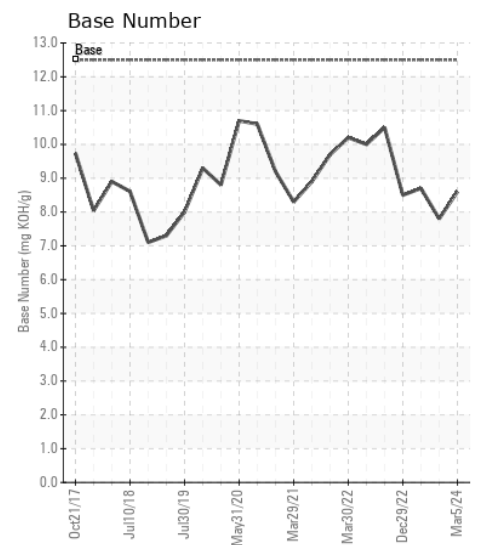
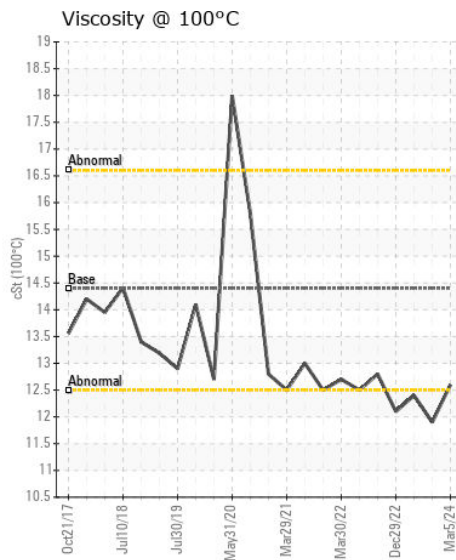
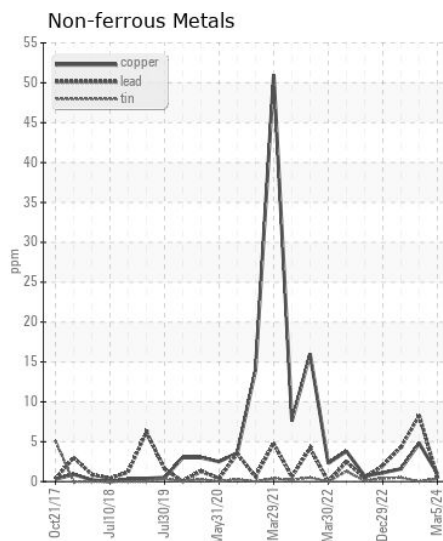
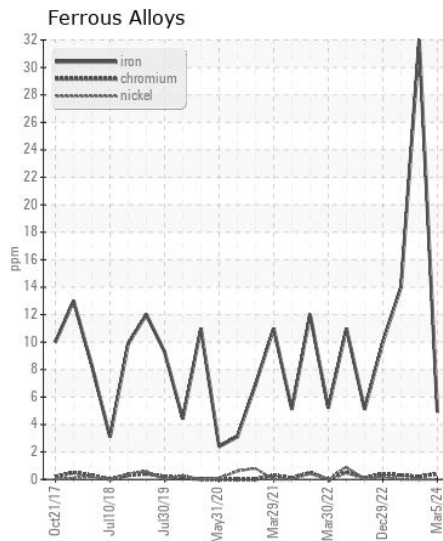
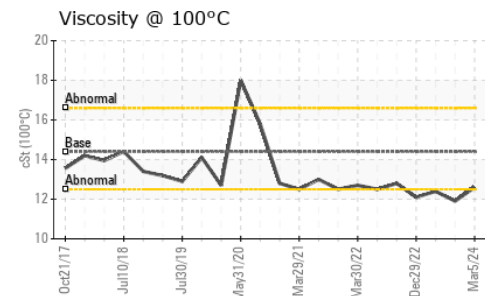
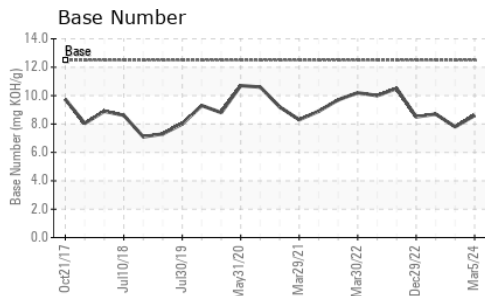
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	8	5
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	2	<1
Fuel		WC Method	>4.0	<b>&lt;1.0</b>	▲ 3.2	▲ 4.1
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>	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.4</b>	10.4	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.9</b>	23.4	23.0
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>0</b>	0	3
Boron	ppm	ASTM D5185m	151	<b>367</b>	259	256
Barium	ppm	ASTM D5185m	0.4	<b>2</b>	6	0
Molybdenum	ppm	ASTM D5185m	250	<b>101</b>	153	115
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	0	<b>514</b>	895	718
Calcium	ppm	ASTM D5185m	2046	<b>1407</b>	1812	1592
Phosphorus	ppm	ASTM D5185m	1043	<b>846</b>	856	716
Zinc	ppm	ASTM D5185m	943	<b>1031</b>	1142	897
Sulfur	ppm	ASTM D5185m	5012	<b>3005</b>	3151	2883
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.2</b>	20.5	19.0
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	<b>8.6</b>	7.8	8.7
Visc @ 100°C	cSt	ASTM D445	14.4	<b>12.6</b>	▲ 11.9	▲ 12.4



Certificate L2367

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

**Sample No.** : MW0051875

**Lab Number** : 06124769

**Unique Number** : 10938920

**Test Package** : MAR 2

**Received** : 21 Mar 2024

**Tested** : 22 Mar 2024

**Diagnosed** : 22 Mar 2024 - Wes Davis

**MARITIME COMPANY**

3802 PORT RIVER RD

PASCAGOULA, MS

US 39567

Contact: TERRY SCUDDER

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T:

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)

F: (228)769-0629