



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

Machine Id  
**EMILY DAVIS**  
Component  
**Starboard Genset**  
Fluid  
**CHEVRON DELO 400 MULTIGRADE 15W40 (6 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0061974</b>	MW0061968	MW0061905
Sample Date		Client Info		<b>11 Jun 2024</b>	01 May 2024	27 Mar 2024
Machine Age	hrs	Client Info		<b>45524</b>	45078	44616
Oil Age	hrs	Client Info		<b>450</b>	478	452
Filter Age	hrs	Client Info		<b>450</b>	478	452
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	<b>7</b>	5	6
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>13</b>	14	15
Silver	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>12	<b>2</b>	1	2
Lead	ppm	ASTM D5185m	>17	<b>0</b>	0	2
Copper	ppm	ASTM D5185m	>70	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185m	>15	<b>0</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**

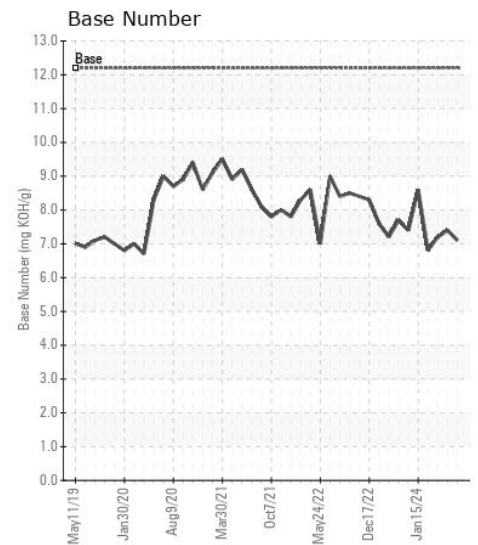
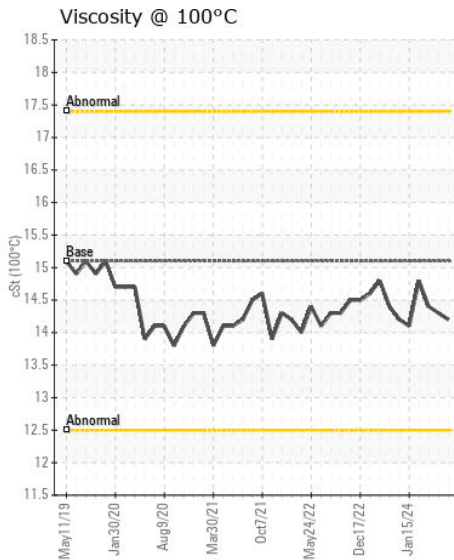
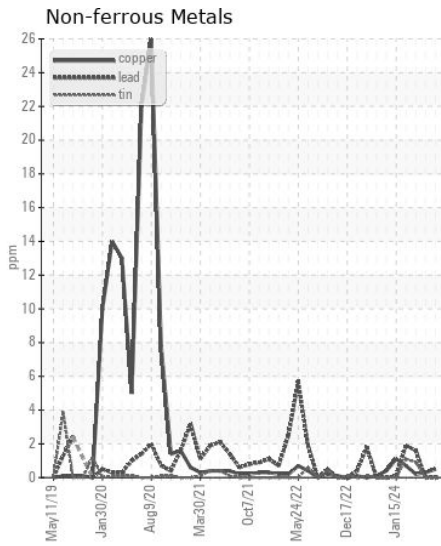
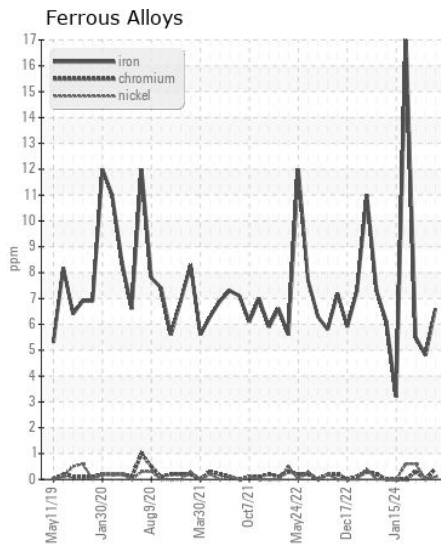
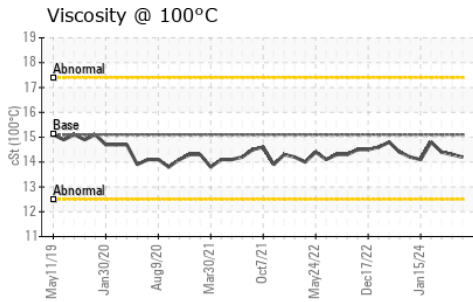
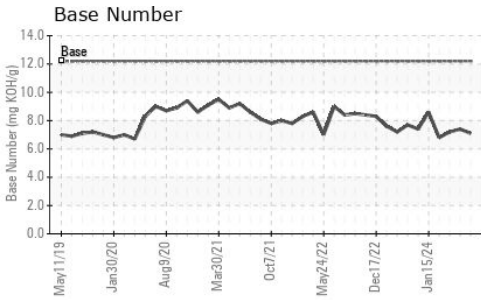
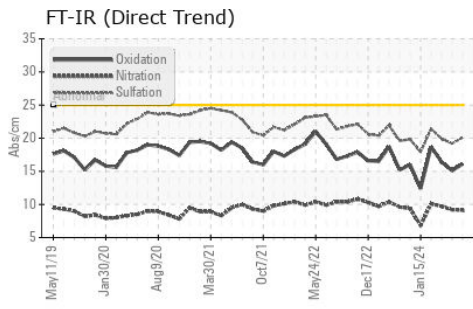
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	4	5
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	1	4
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>9.1</b>	9.2	9.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.1</b>	19.2	19.9
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>1</b>	2	3
Boron	ppm	ASTM D5185m		<b>135</b>	96	71
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>45</b>	33	32
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>703</b>	766	721
Calcium	ppm	ASTM D5185m		<b>1601</b>	1686	1686
Phosphorus	ppm	ASTM D5185m	1360	<b>890</b>	757	719
Zinc	ppm	ASTM D5185m	1480	<b>999</b>	886	809
Sulfur	ppm	ASTM D5185m		<b>3275</b>	3818	3449
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.1</b>	15.1	16.4
Base Number (BN)	mg KOH/g	ASTM D2896	12.2	<b>7.1</b>	7.4	7.2
Visc @ 100°C	cSt	ASTM D445	15.1	<b>14.2</b>	14.3	14.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0061974  
**Lab Number** : 06224223  
**Unique Number** : 11102420  
**Test Package** : MAR 2

**Received** : 28 Jun 2024  
**Tested** : 01 Jul 2024  
**Diagnosed** : 01 Jul 2024 - Wes Davis

**MAGNOLIA MARINE TRANSPORT**  
 697 HAINING ROAD  
 VICKSBURG, MS  
 US 39183  
 Contact: MMT MAINTENANCE PLANNERS  
 mmtmaintenanceplanners@ergon.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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