



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

Area  
**ELEANOR G MCDONALD**  
Machine Id  
**[ELEANOR G MCDONALD] 003 552824-3**  
Component  
**Starboard Main Engine**  
Fluid  
**CHEVRON DELO 710 LS (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0065697</b>	MW0055471	MW0051523
Sample Date		Client Info		<b>01 Jan 2024</b>	01 Dec 2023	01 Nov 2023
Machine Age	hrs	Client Info		<b>12205</b>	11446	10729
Oil Age	hrs	Client Info		<b>12205</b>	11446	10729
Filter Age	hrs	Client Info		<b>95</b>	44	141
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	>75	<b>17</b>	17	17
Chromium	ppm	ASTM D5185m	>8	<b>2</b>	2	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>3	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>15	<b>2</b>	2	<1
Lead	ppm	ASTM D5185m	>18	<b>6</b>	6	6
Copper	ppm	ASTM D5185m	>80	<b>21</b>	22	22
Tin	ppm	ASTM D5185m	>14	<b>6</b>	6	5
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

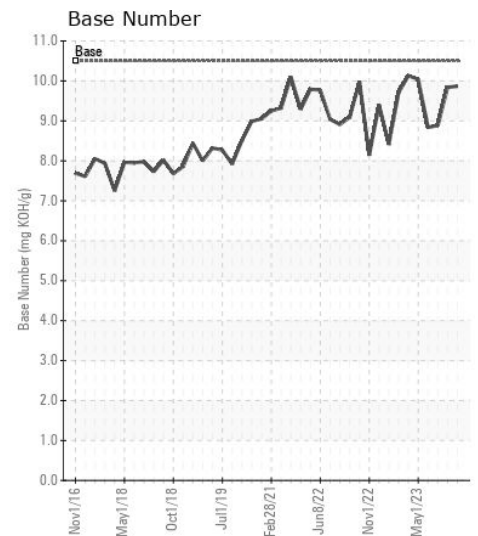
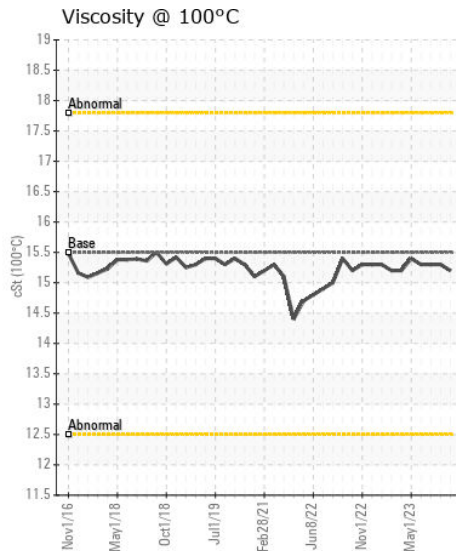
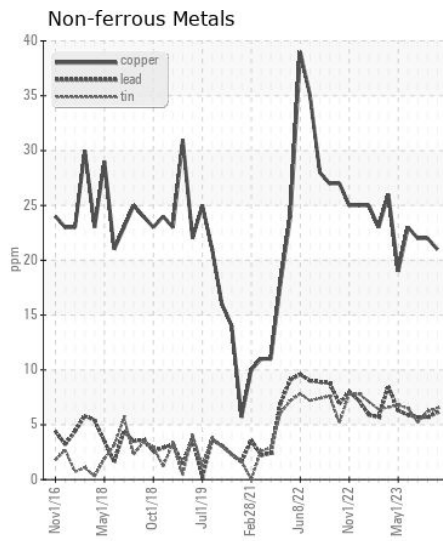
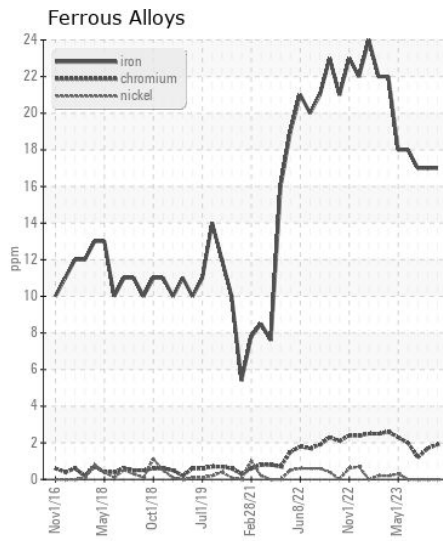
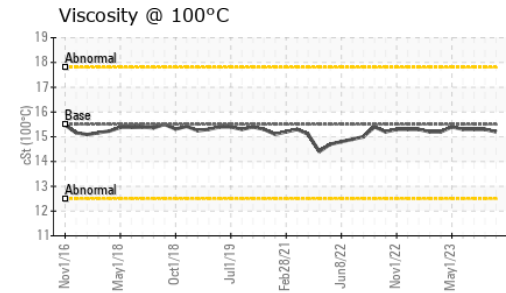
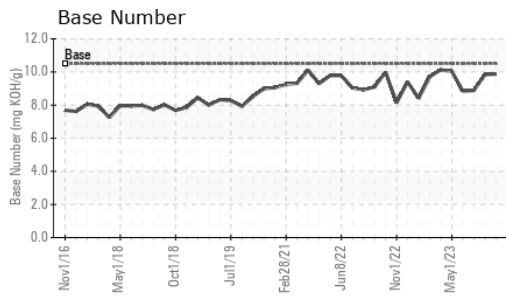
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>4</b>	4	4
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	1
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>1.6</b>	1.5	1.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.6</b>	8.6	8.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.2</b>	18.3	18.5
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	>75	<b>&lt;1</b>	<1	2
Boron	ppm	ASTM D5185m		<b>40</b>	42	45
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>47</b>	44	45
Manganese	ppm	ASTM D5185m		<b>1</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>29</b>	31	35
Calcium	ppm	ASTM D5185m		<b>3475</b>	3294	3363
Phosphorus	ppm	ASTM D5185m		<b>24</b>	25	42
Zinc	ppm	ASTM D5185m		<b>23</b>	21	52
Sulfur	ppm	ASTM D5185m		<b>2575</b>	2313	2547
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>8.5</b>	8.6	8.8
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	<b>9.87</b>	9.84	8.88
Visc @ 100°C	cSt	ASTM D445	15.5	<b>15.2</b>	15.3	15.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0065697 **Received** : 08 Jan 2024  
**Lab Number** : 06054097 **Diagnosed** : 09 Jan 2024  
**Unique Number** : 10820046 **Diagnostician** : Wes Davis  
**Test Package** : MAR 2

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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