



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

Area  
**CRAIG E PHILIP**  
Machine Id  
**[CRAIG E PHILIP] 006 565024-6**  
Component  
**Starboard Reduction Gear**  
Fluid  
**CHEVRON MEROPA 320 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0064589</b>	MW0060309	MW0060307
Sample Date		Client Info		<b>01 Jan 2024</b>	31 Oct 2023	01 Oct 2023
Machine Age	hrs	Client Info		<b>52697</b>	51211	50560
Oil Age	hrs	Client Info		<b>52697</b>	51211	50560
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	<b>48</b>	52	49
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>1</b>	<1	<1
Lead	ppm	ASTM D5185m	>100	<b>&lt;1</b>	1	2
Copper	ppm	ASTM D5185m	>50	<b>74</b>	70	69
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

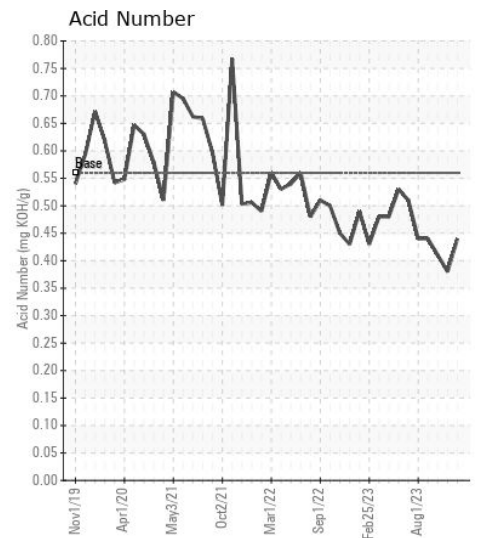
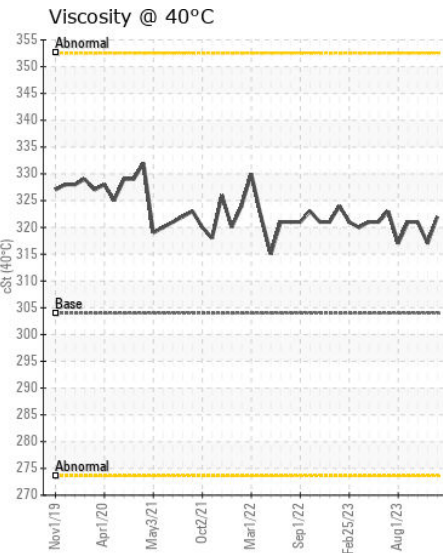
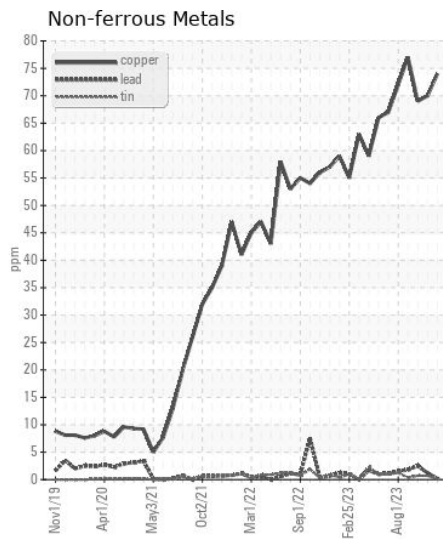
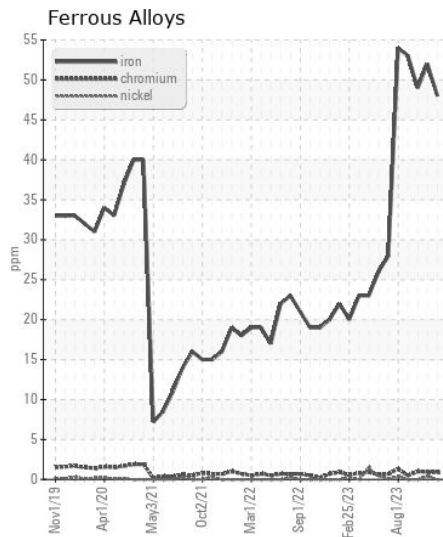
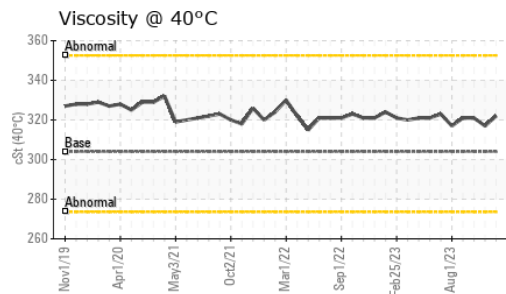
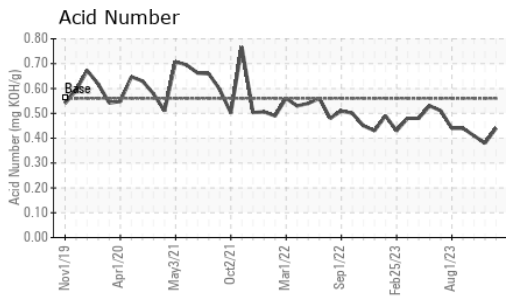
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	<b>0</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	2
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>0</b>	1	1
Boron	ppm	ASTM D5185m	20	<b>2</b>	10	11
Barium	ppm	ASTM D5185m		<b>0</b>	0	3
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>5</b>	6	<1
Calcium	ppm	ASTM D5185m	25	<b>35</b>	20	17
Phosphorus	ppm	ASTM D5185m	235	<b>242</b>	252	260
Zinc	ppm	ASTM D5185m		<b>44</b>	20	44
Sulfur	ppm	ASTM D5185m		<b>4753</b>	5296	5119
Acid Number (AN)	mg KOH/g	ASTM D8045	0.56	<b>0.44</b>	0.38	0.41
Visc @ 40°C	cSt	ASTM D445	304	<b>322</b>	317	321



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0064589 **Received** : 16 Jan 2024  
**Lab Number** : 06062112 **Diagnosed** : 18 Jan 2024  
**Unique Number** : 10833494 **Diagnostician** : Don Baldrige  
**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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