



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

Machine Id  
**EIC**  
Component  
**Starboard Genset**  
Fluid  
**CHEVRON URSA SUPER PLUS 40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW05745152</b>	MW05718177	MW05673991
Sample Date		Client Info		<b>19 Jan 2023</b>	14 Dec 2022	23 Oct 2022
Machine Age	hrs	Client Info		<b>33165</b>	32671	32165
Oil Age	hrs	Client Info		<b>494</b>	506	496
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	>25	<b>8</b>	2	2
Chromium	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>10	<b>0</b>	2	1
Lead	ppm	ASTM D5185m	>10	<b>4</b>	1	<1
Copper	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Tin	ppm	ASTM D5185m	>5	<b>0</b>	0	<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**

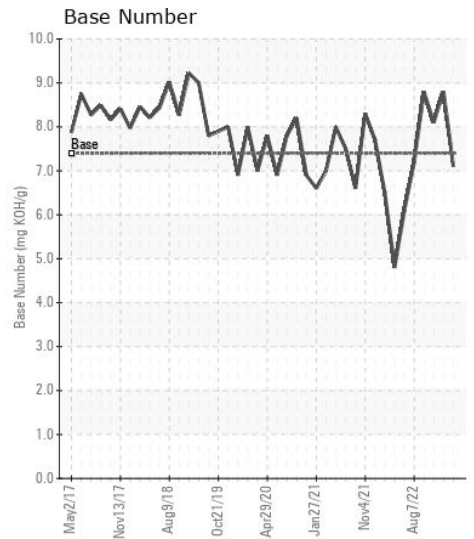
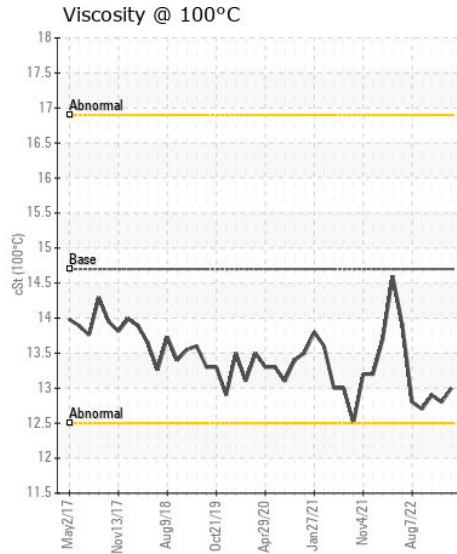
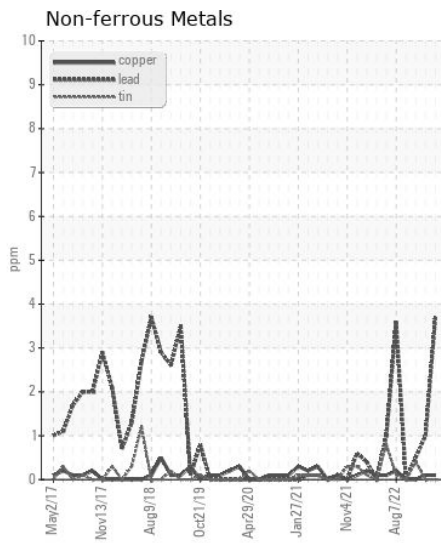
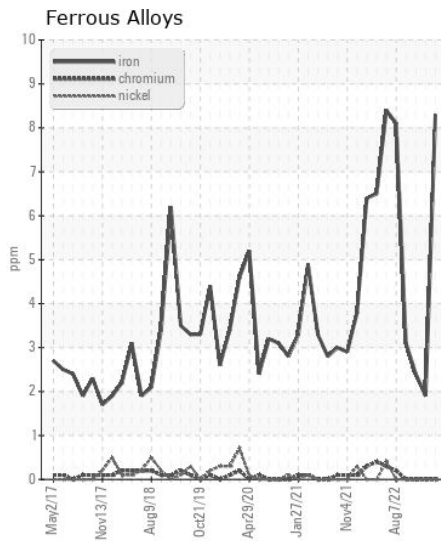
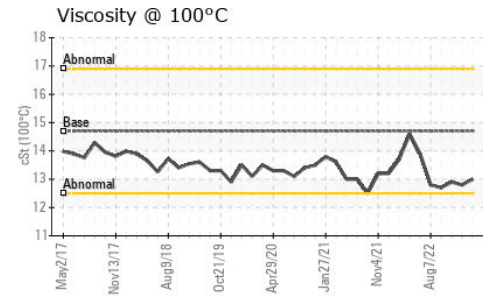
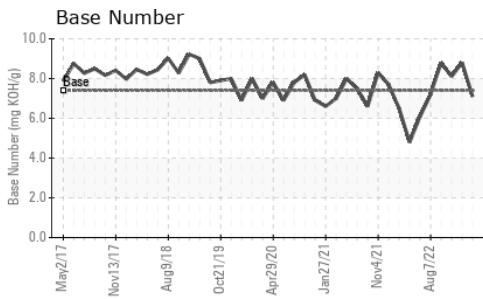
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	2	3
Potassium	ppm	ASTM D5185m	>20	<b>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>0.2</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.3</b>	7.2	6.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.7</b>	23.3	22.0
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	1
Boron	ppm	ASTM D5185m		<b>299</b>	332	396
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>51</b>	105	84
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>152</b>	491	403
Calcium	ppm	ASTM D5185m		<b>2029</b>	1479	1467
Phosphorus	ppm	ASTM D5185m	1000	<b>648</b>	808	943
Zinc	ppm	ASTM D5185m	1090	<b>837</b>	950	1136
Sulfur	ppm	ASTM D5185m		<b>2429</b>	3110	3706
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>17.0</b>	17.6	16.1
Base Number (BN)	mg KOH/g	ASTM D2896	7.4	<b>7.1</b>	8.8	8.1
Visc @ 100°C	cSt	ASTM D445	14.7	<b>13.0</b>	12.8	12.9



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW05745152  
**Lab Number** : 05745152  
**Unique Number** : 10299751  
**Test Package** : MAR 2  
**Received** : 20 Jan 2023  
**Tested** : 23 Jan 2023  
**Diagnosed** : 24 Jan 2023 - Angela Borella

**ILLINOIS MARINE TOWING**  
 PO BOX 391  
 LEMONT, IL  
 US 60439  
 Contact: RHETT DANIEL  
 rdaniel@imtowing.com  
 T: (630)280-4926  
 F: (630)739-2041

Certificate L2367  
 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)