



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

RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW06048285	MW06017153	MW05981738
Sample Date		Client Info		01 Jan 2024	23 Nov 2023	16 Oct 2023
Machine Age	hrs	Client Info		52180	51722	51193
Oil Age	hrs	Client Info		658	529	560
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	SEVERE	ABNORMAL

WEAR

All component wear rates are normal.

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

CONTAMINATION

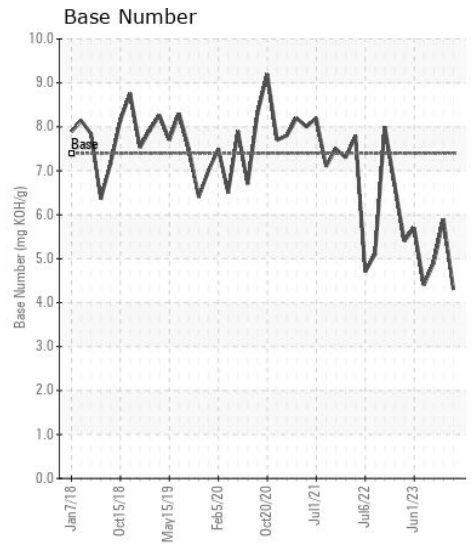
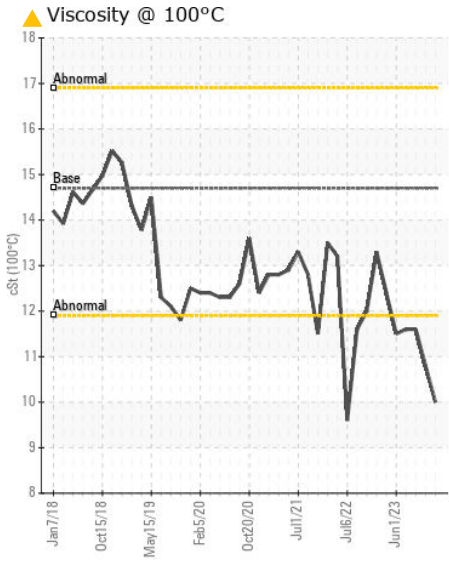
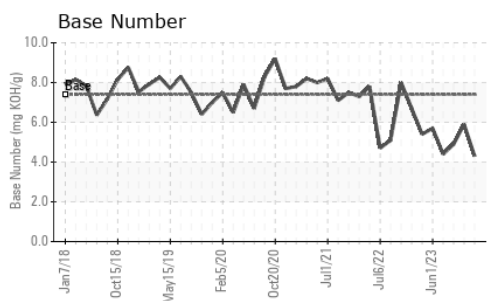
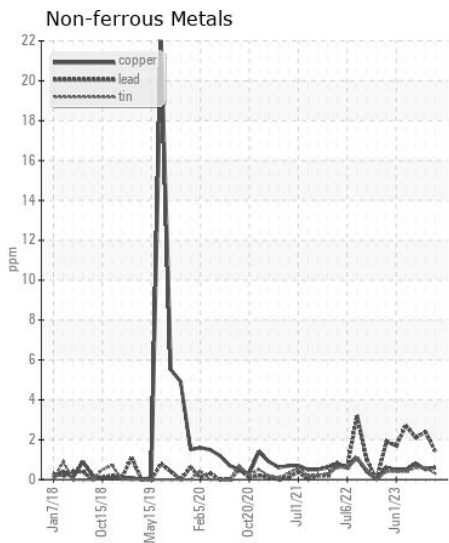
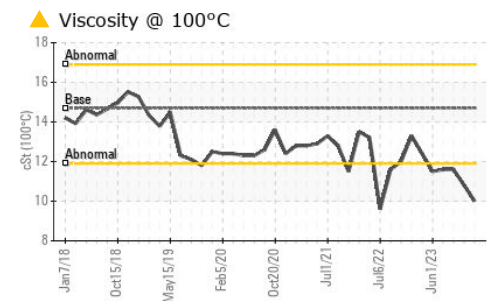
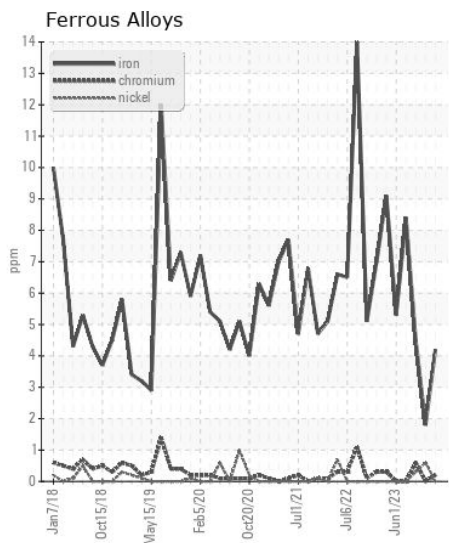
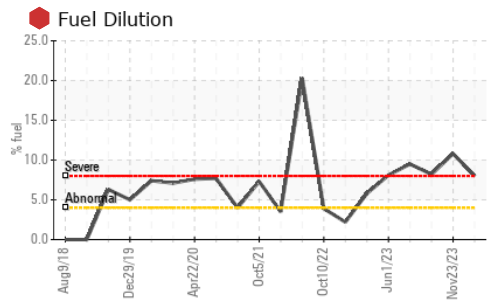
There is a high amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>25	4	5	4
Potassium	ppm	ASTM D5185m	>20	1	1	2
Fuel	%	ASTM D3524	>4.0	8.0	10.8	8.2
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	9.4	9.8	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.0	27.6	24.2
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		<1	2	0
Boron	ppm	ASTM D5185m		76	242	306
Barium	ppm	ASTM D5185m		0	0	10
Molybdenum	ppm	ASTM D5185m		31	88	68
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		157	441	240
Calcium	ppm	ASTM D5185m		1934	1317	1754
Phosphorus	ppm	ASTM D5185m	1000	668	628	591
Zinc	ppm	ASTM D5185m	1090	958	712	726
Sulfur	ppm	ASTM D5185m		2999	2180	2453
Oxidation	Abs/.1mm	*ASTM D7414	>25	28.7	32.9	26.7
Base Number (BN)	mg KOH/g	ASTM D2896	7.4	4.3	5.9	4.9
Visc @ 100°C	cSt	ASTM D445	14.7	10.0	10.8	11.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW06048285 **Received** : 29 Dec 2023
Lab Number : 06048285 **Tested** : 02 Jan 2024
Unique Number : 10808893 **Diagnosed** : 02 Jan 2024 - Don Baldrige
Test Package : MAR 2 (Additional Tests: PercentFuel)

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

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)