



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

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

RECOMMENDATION

We advise that you check the fuel injection system. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW05981738	MW05934665	MW05862893
Sample Date		Client Info		16 Oct 2023	24 Aug 2023	01 Jun 2023
Machine Age	hrs	Client Info		51193	50638	49758
Oil Age	hrs	Client Info		560	880	717
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				ABNORMAL	SEVERE	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	4	8	5
Chromium	ppm	ASTM D5185m	>4	<1	0	0
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>12	3	<1	0
Lead	ppm	ASTM D5185m	>17	2	3	2
Copper	ppm	ASTM D5185m	>70	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

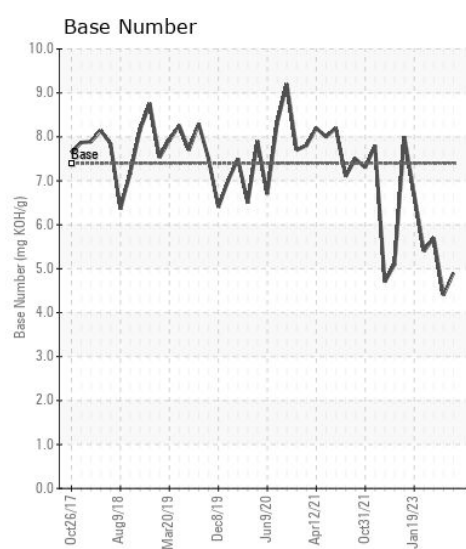
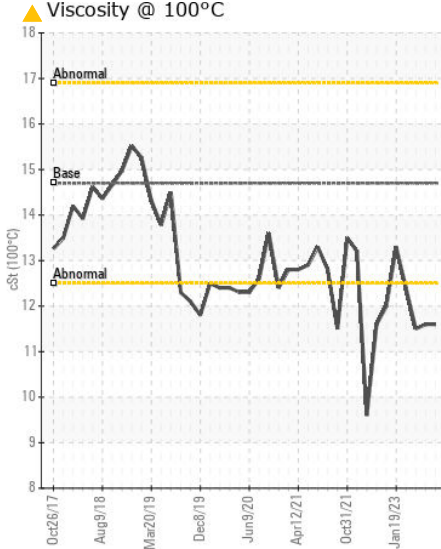
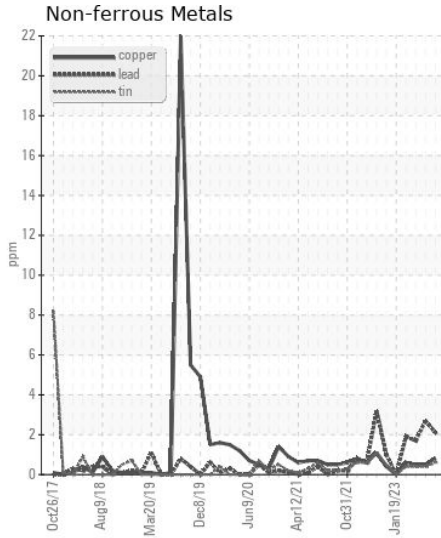
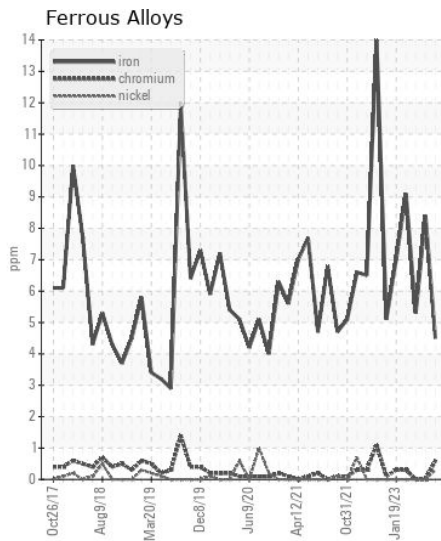
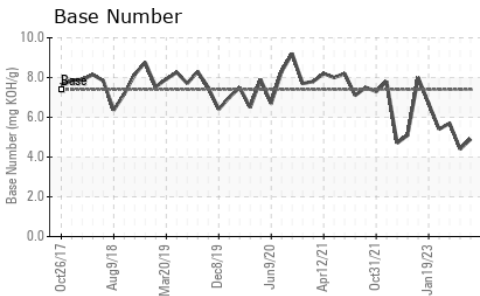
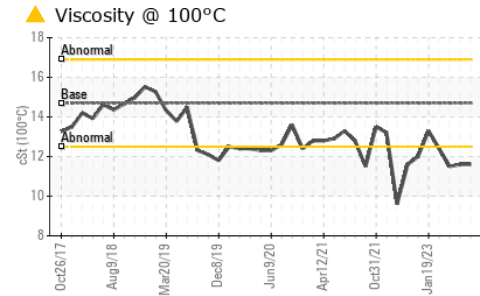
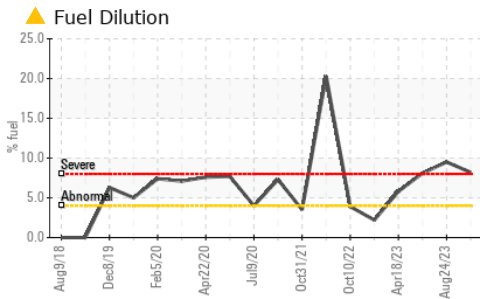
There is a moderate amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>25	4	10	7
Potassium	ppm	ASTM D5185m	>20	2	<1	1
Fuel	%	ASTM D3524	>4.0	▲ 8.2	▲ 9.5	▲ 8.1
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	8.2	11.0	10.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.2	28.4	29.1
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 BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m		0	2	1
Boron	ppm	ASTM D5185m		306	254	249
Barium	ppm	ASTM D5185m		10	0	0
Molybdenum	ppm	ASTM D5185m		68	85	86
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		240	412	463
Calcium	ppm	ASTM D5185m		1754	1385	1560
Phosphorus	ppm	ASTM D5185m	1000	591	822	640
Zinc	ppm	ASTM D5185m	1090	726	1059	820
Sulfur	ppm	ASTM D5185m		2453	3162	2766
Oxidation	Abs/.1mm	*ASTM D7414	>25	26.7	37.1	34.8
Base Number (BN)	mg KOH/g	ASTM D2896	7.4	4.9	4.4	5.7
Visc @ 100°C	cSt	ASTM D445	14.7	▲ 11.6	▲ 11.6	▲ 11.5



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW05981738 **Received** : 17 Oct 2023
Lab Number : 05981738 **Tested** : 18 Oct 2023
Unique Number : 10699033 **Diagnosed** : 19 Oct 2023 - Don Baldrige
Test Package : MAR 2 (Additional Tests: PercentFuel)

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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)