



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		MW05862893	MW05823776	MW05745121
Sample Date		Client Info		01 Jun 2023	18 Apr 2023	19 Jan 2023
Machine Age	hrs	Client Info		49758	49041	48436
Oil Age	hrs	Client Info		717	615	524
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	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>25	5	9	7
Chromium	ppm	ASTM D5185m	>5	0	<1	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	0	2
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>10	0	0	2
Lead	ppm	ASTM D5185m	>10	2	2	0
Copper	ppm	ASTM D5185m	>20	<1	<1	0
Tin	ppm	ASTM D5185m	>5	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

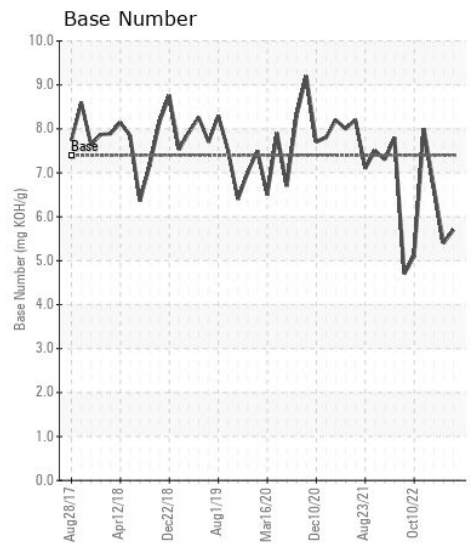
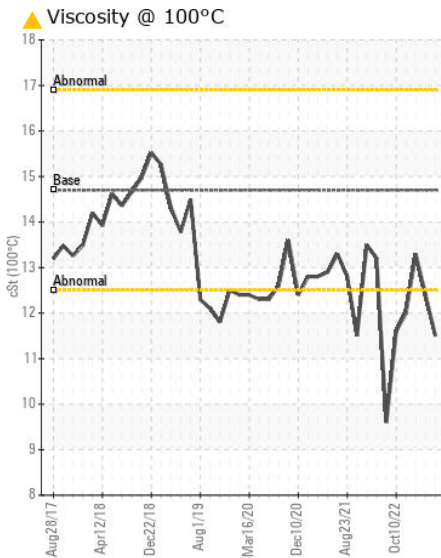
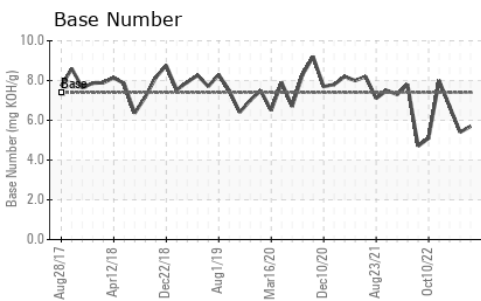
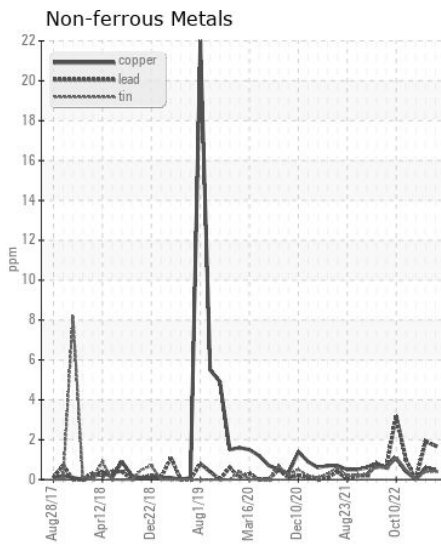
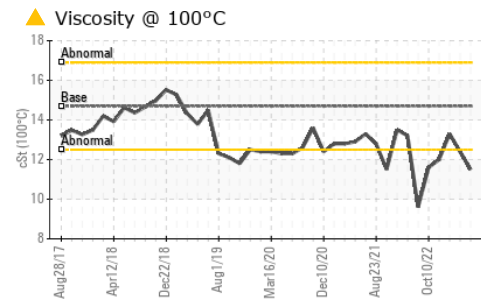
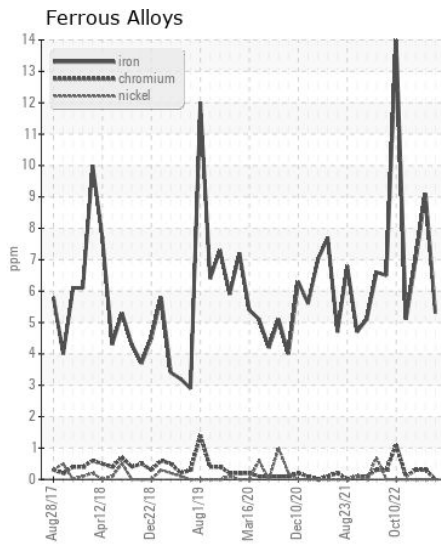
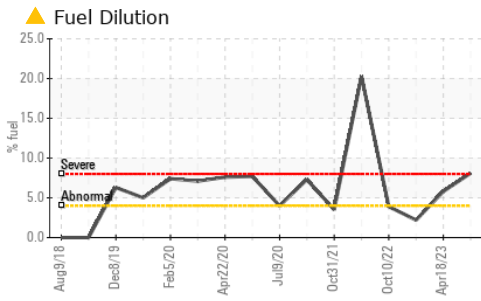
There is a moderate amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>25	7	7	5
Potassium	ppm	ASTM D5185m	>20	1	2	0
Fuel	%	ASTM D3524	>4.0	▲ 8.1	▲ 5.8	<1.0
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	10.6	9.3	9.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	29.1	24.1	23.9
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		1	<1	0
Boron	ppm	ASTM D5185m		249	345	305
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		86	62	80
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		463	206	501
Calcium	ppm	ASTM D5185m		1560	2138	1324
Phosphorus	ppm	ASTM D5185m	1000	640	760	778
Zinc	ppm	ASTM D5185m	1090	820	976	939
Sulfur	ppm	ASTM D5185m		2766	2769	3049
Oxidation	Abs/.1mm	*ASTM D7414	>25	34.8	26.0	24.2
Base Number (BN)	mg KOH/g	ASTM D2896	7.4	5.7	5.4	6.7
Visc @ 100°C	cSt	ASTM D445	14.7	▲ 11.5	▲ 12.4	13.3



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW05862893
Lab Number : 05862893
Unique Number : 10497358
Test Package : MAR 2 (Additional Tests: PercentFuel)

Received : 02 Jun 2023
Tested : 05 Jun 2023
Diagnosed : 05 Jun 2023 - Angela Borella

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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)