



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

LEE SYNNOTT

Machine Id

[LEE SYNNOTT] 008 523550-8

Component

Starboard Genset

Fluid

CHEVRON DELO 400 XLE 15W40 (18 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0060117	MW0055431	MW0055522
Sample Date		Client Info		02 Jan 2024	30 Nov 2023	28 Oct 2023
Machine Age	hrs	Client Info		21894	21505	21117
Oil Age	hrs	Client Info		389	388	405
Filter Age	hrs	Client Info		0	388	405
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	5	5	6
Chromium	ppm	ASTM D5185m	>4	0	0	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>12	1	1	1
Lead	ppm	ASTM D5185m	>17	0	0	0
Copper	ppm	ASTM D5185m	>70	<1	<1	0
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

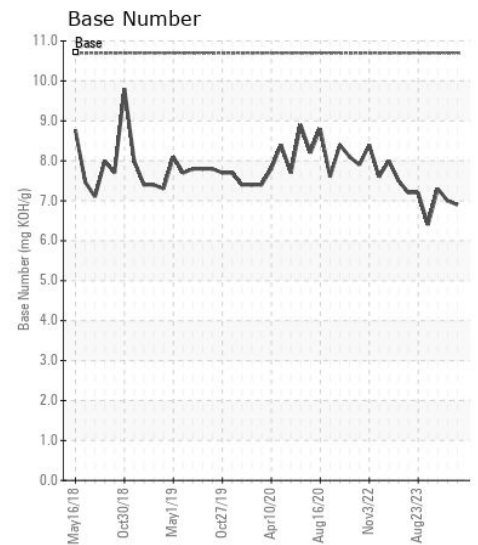
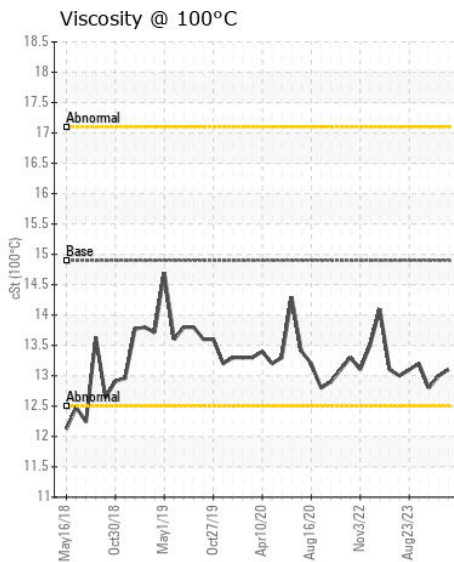
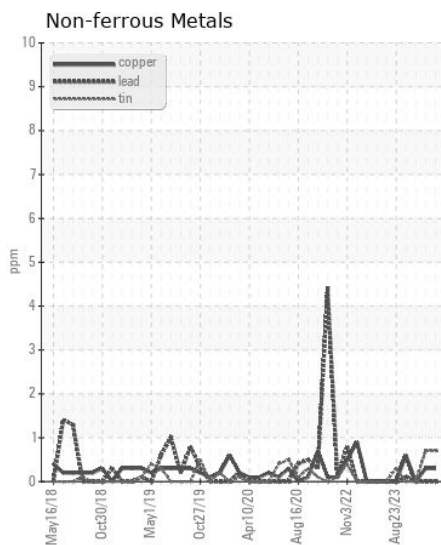
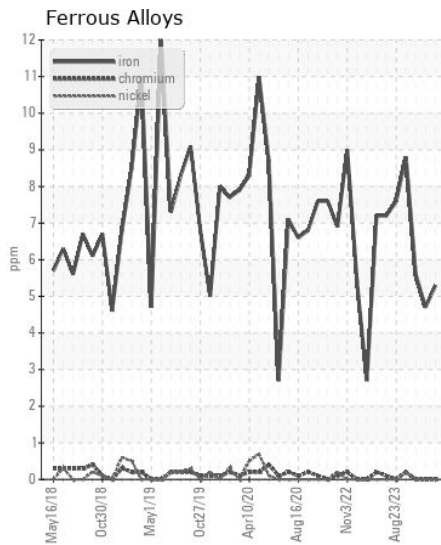
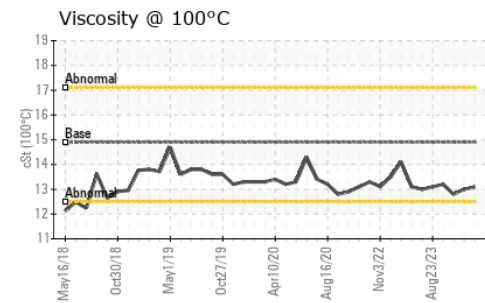
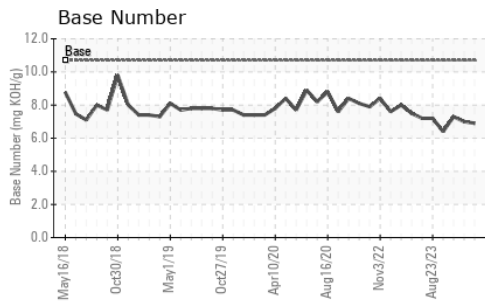
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	4	4
Potassium	ppm	ASTM D5185m	>20	0	0	<1
Fuel		WC Method	>4.0	<1.0	<1.0	<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	7.0	6.8	7.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.0	19.6	19.7
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

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		2	2	<1
Boron	ppm	ASTM D5185m		373	368	380
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		63	62	66
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		281	294	311
Calcium	ppm	ASTM D5185m		1787	1766	2109
Phosphorus	ppm	ASTM D5185m	760	1016	1035	1160
Zinc	ppm	ASTM D5185m	830	1259	1258	1479
Sulfur	ppm	ASTM D5185m	2770	3520	3555	4130
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.8	14.4	14.9
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	6.9	7.0	7.3
Visc @ 100°C	cSt	ASTM D445	14.9	13.1	13.0	12.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : MW0060117

Lab Number : 06084196

Unique Number : 10871641

Test Package : MAR 2

Received : 08 Feb 2024

Tested : 09 Feb 2024

Diagnosed : 12 Feb 2024 - Don Baldrige

INGRAM BARGE

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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)