



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
CDA
Machine Id
CDA
Component
Starboard Genset
Fluid
CHEVRON DELO 710 LS (8 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0055044	MW0050797	MW0050803
Sample Date		Client Info		01 Jan 2024	11 Dec 2023	30 Nov 2023
Machine Age	hrs	Client Info		15587	15315	15067
Oil Age	hrs	Client Info		264	248	262
Filter Age	hrs	Client Info		264	248	262
Oil Changed		Client Info		Changed	Changed	N/A
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	2	2	2
Chromium	ppm	ASTM D5185m	>4	<1	<1	0
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>5	0	0	0
Aluminum	ppm	ASTM D5185m	>12	1	2	2
Lead	ppm	ASTM D5185m	>17	<1	<1	0
Copper	ppm	ASTM D5185m	>70	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	<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

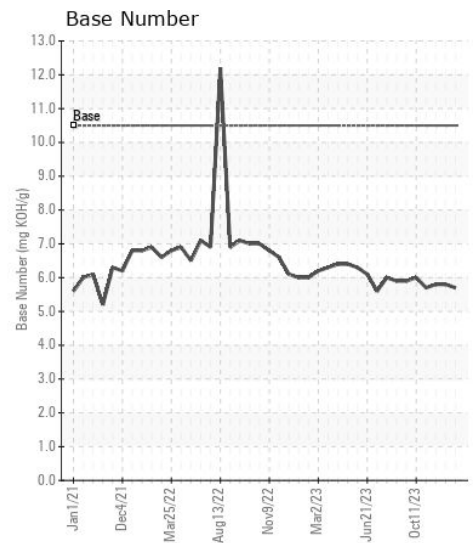
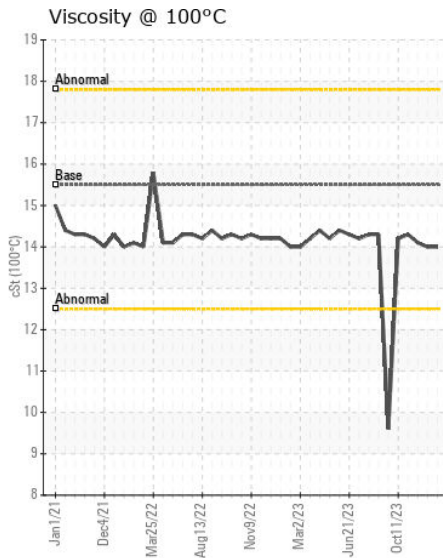
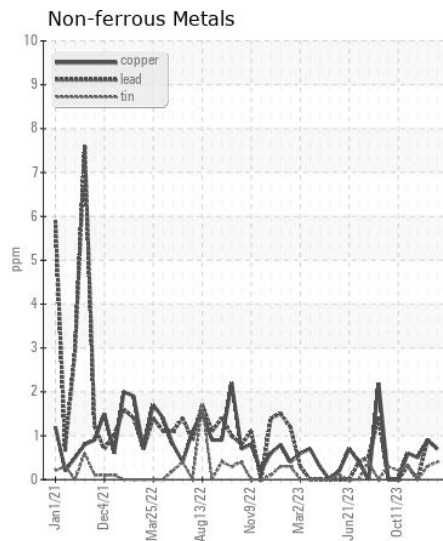
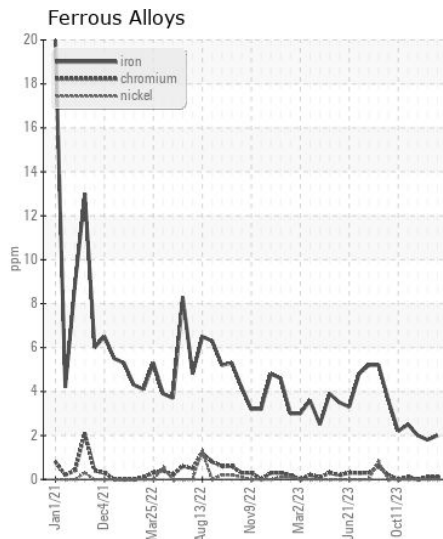
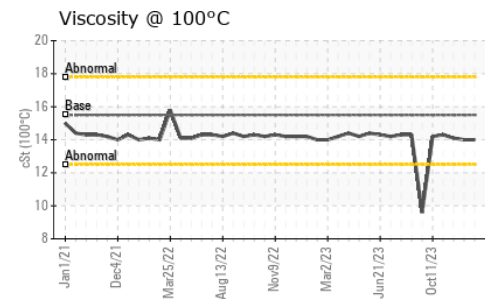
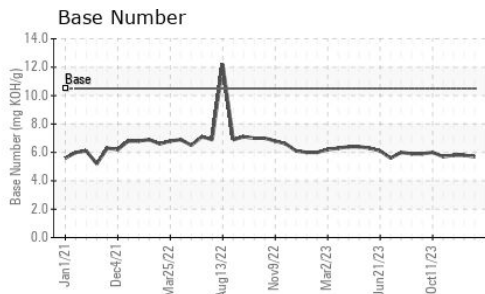
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	2	2	3
Potassium	ppm	ASTM D5185m	>20	1	<1	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	7.2	7.0	7.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	14.7	14.6	14.8
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		<1	<1	2
Boron	ppm	ASTM D5185m		37	38	42
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		40	40	41
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		11	11	11
Calcium	ppm	ASTM D5185m		2976	2962	3244
Phosphorus	ppm	ASTM D5185m		0	0	<1
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m		1902	1895	2072
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.3	9.0	9.7
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	5.7	5.8	5.8
Visc @ 100°C	cSt	ASTM D445	15.5	14.0	14.0	14.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0055044
Lab Number : 06105805
Unique Number : 10909302
Test Package : MAR 2

Received : 01 Mar 2024
Tested : 02 Mar 2024
Diagnosed : 02 Mar 2024 - Wes Davis

AMERICAN RIVER TRANSPORTATION CO.
P.O. BOX 2889
ST. LOUIS, MO
US 63111
Contact: BRIAN GRIEWING
brian.griewing@adm.com

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)

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