



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
GLENN JONES (S/N 81-D1-1100)
Component
Starboard Main Engine
Fluid
CHEVRON DELO 710 LS (450 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0055877	MW0055860	MW0055875
Sample Date		Client Info		15 Jan 2024	20 Nov 2023	08 Nov 2023
Machine Age	hrs	Client Info		6691	5363	5125
Oil Age	hrs	Client Info		6691	5363	5125
Filter Age	hrs	Client Info		1417	85	1097
Oil Changed		Client Info		N/A	Not Changed	Not Changed
Filter Changed		Client Info		Changed	Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	9	16	12
Chromium	ppm	ASTM D5185m	>8	<1	2	2
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m	>3	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	<1	3	2
Lead	ppm	ASTM D5185m	>18	2	7	10
Copper	ppm	ASTM D5185m	>80	7	17	18
Tin	ppm	ASTM D5185m	>14	3	6	5
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

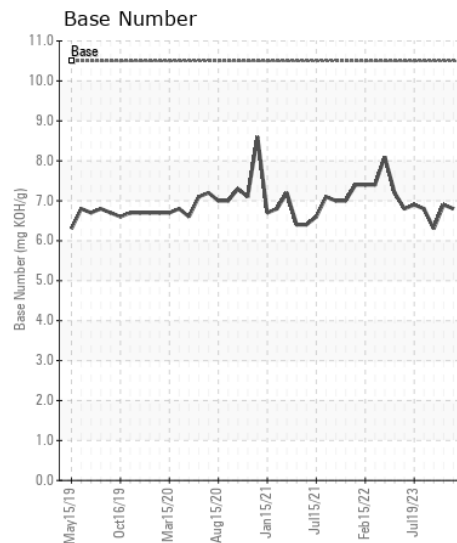
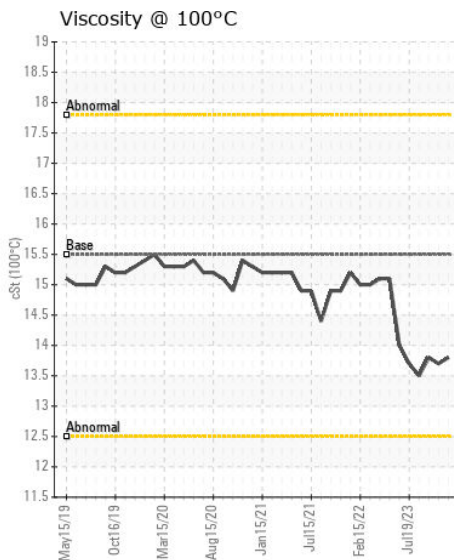
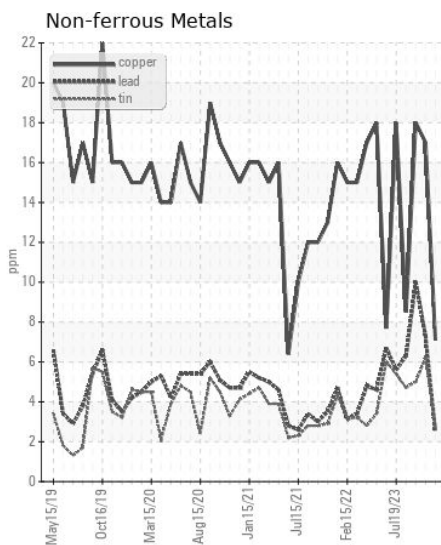
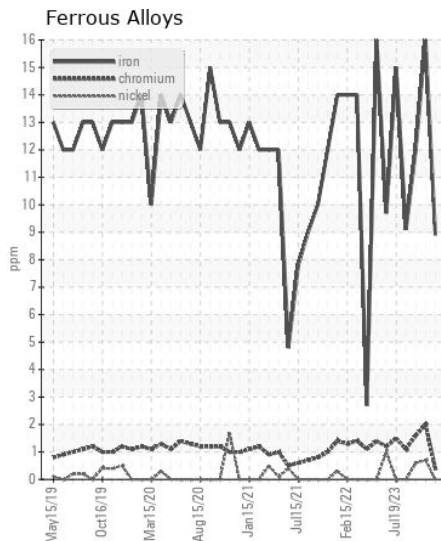
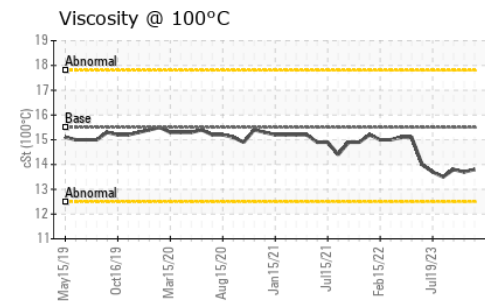
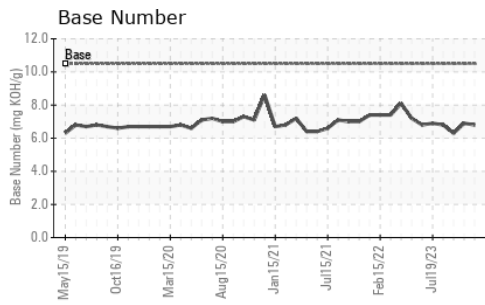
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	2	6	4
Potassium	ppm	ASTM D5185m	>20	1	4	4
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	>3	0.3	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	7.6	7.5	7.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	15.5	15.5	15.5
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	>75	0	<1	0
Boron	ppm	ASTM D5185m		41	53	38
Barium	ppm	ASTM D5185m		0	11	11
Molybdenum	ppm	ASTM D5185m		42	59	44
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		36	15	11
Calcium	ppm	ASTM D5185m		3368	4537	3402
Phosphorus	ppm	ASTM D5185m		19	33	30
Zinc	ppm	ASTM D5185m		16	7	8
Sulfur	ppm	ASTM D5185m		2300	3597	2537
Oxidation	Abs/.1mm	*ASTM D7414	>25	8.5	8.5	8.7
Base Number (BN)	mg KOH/g	ASTM D2896	10.5	6.8	6.9	6.3
Visc @ 100°C	cSt	ASTM D445	15.5	13.8	13.7	13.8



Certificate L2367

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

Sample No. : MW0055877

Lab Number : 06085642

Unique Number : 10873087

Test Package : MAR 2

Received : 12 Feb 2024

Tested : 12 Feb 2024

Diagnosed : 12 Feb 2024 - Wes Davis

AMERICAN COMMERCIAL LINES

PO BOX 610, 1701 E. MARKET STREET

JEFFERSONVILLE, IN

US 47130

Contact: RONALD SCHNEIDER

ronald.schneider@bargaeacbl.com

T:

F: (812)288-1644

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)