



Machine Id
MV WAYNE C
Component
Starboard Reduction Gear
Fluid
CHEVRON DELO 400 SDE SAE 15W40 (19 GAL)

RECOMMENDATION

No corrective action is recommended at this time. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0042019	MW0045777	MW0042056
Sample Date		Client Info		06 May 2024	14 May 2023	27 Aug 2022
Machine Age	hrs	Client Info		4873	2929	23937
Oil Age	hrs	Client Info		1000	0	0
Filter Age	hrs	Client Info		1000	0	0
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

The copper level is severe. Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185m	>150	11	7	10
Chromium	ppm	ASTM D5185m	>10	0	<1	0
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	3	4	3
Lead	ppm	ASTM D5185m	>100	0	<1	<1
Copper	ppm	ASTM D5185m	>50	▲ 570	▲ 287	33
Tin	ppm	ASTM D5185m	>10	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

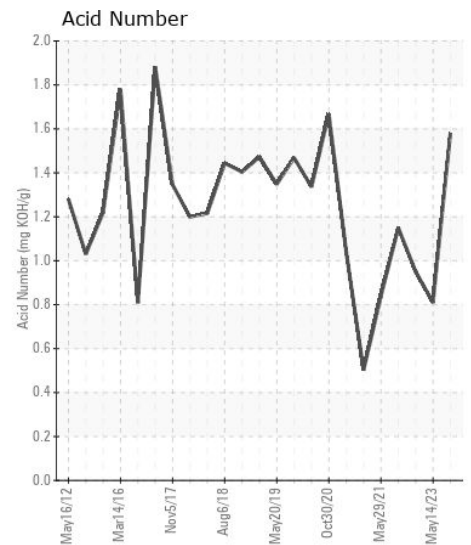
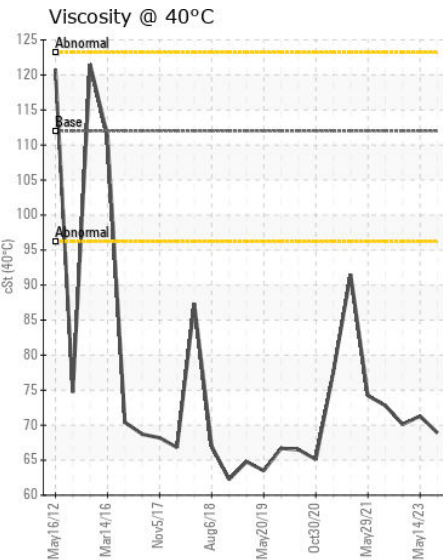
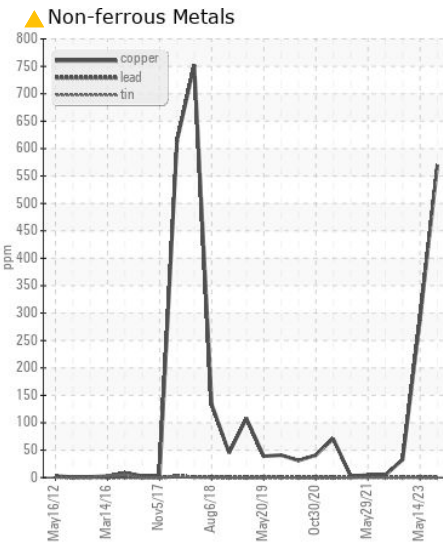
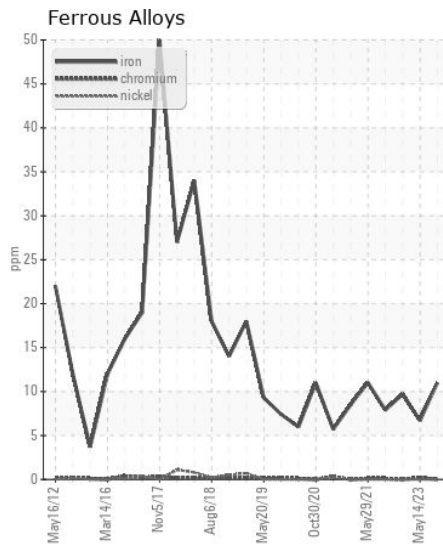
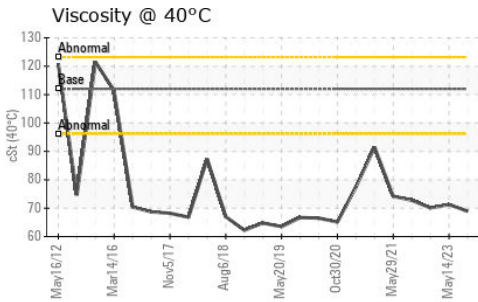
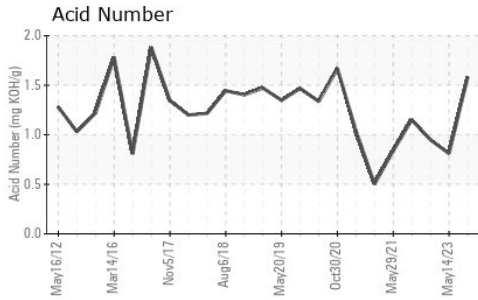
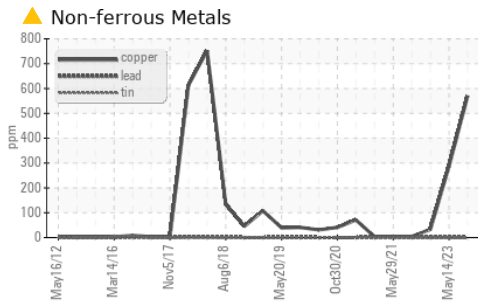
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	6	6	6
Potassium	ppm	ASTM D5185m	>20	<1	1	0
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	LIGHT	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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		4	2	3
Boron	ppm	ASTM D5185m		376	390	350
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		116	120	105
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		663	710	639
Calcium	ppm	ASTM D5185m		1444	1493	1658
Phosphorus	ppm	ASTM D5185m	760	757	761	687
Zinc	ppm	ASTM D5185m	800	822	878	801
Sulfur	ppm	ASTM D5185m	3000	2938	3151	3060
Acid Number (AN)	mg KOH/g	ASTM D8045		1.58	0.81	0.95
Visc @ 40°C	cSt	ASTM D445	112	68.9	71.3	70.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0042019
Lab Number : 06174691
Unique Number : 11020744
Test Package : MAR 2

Received : 09 May 2024
Tested : 10 May 2024
Diagnosed : 15 May 2024 - Don Baldrige

C & B MARINE
 50 E RIVERCENTER BLVD, SUITE 1180
 COVINGTON, KY
 US 41011

Contact: DAVID WESTRICH
 dwestrich@carlislebray.com

T: (812)290-4063
 F: (859)655-7504

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)