



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
MILES MADISON
Component
Port Main Engine
Fluid
CHEVRON DELO 400 LE 15W40 (150 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0057870	MW0057891	MW0057890
Sample Date		Client Info		13 Mar 2024	20 Dec 2023	25 Nov 2023
Machine Age	hrs	Client Info		460	64684	64216
Oil Age	hrs	Client Info		460	960	492
Filter Age	hrs	Client Info		460	263	492
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>75	6	3	3
Chromium	ppm	ASTM D5185m	>8	<1	0	0
Nickel	ppm	ASTM D5185m	>2	2	0	0
Titanium	ppm	ASTM D5185m	>3	17	14	14
Silver	ppm	ASTM D5185m	>2	<1	0	0
Aluminum	ppm	ASTM D5185m	>15	2	<1	<1
Lead	ppm	ASTM D5185m	>18	2	<1	0
Copper	ppm	ASTM D5185m	>80	4	1	1
Tin	ppm	ASTM D5185m	>14	2	0	0
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

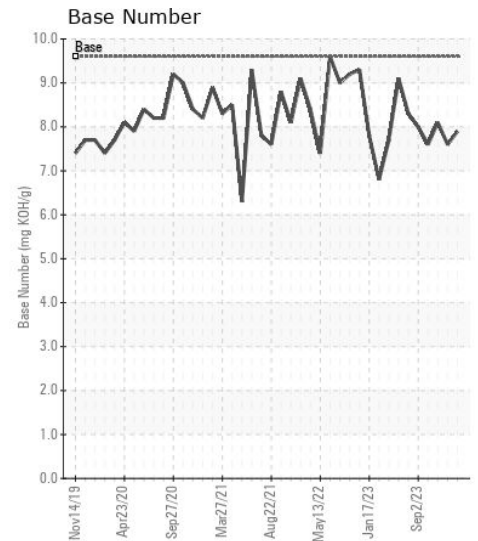
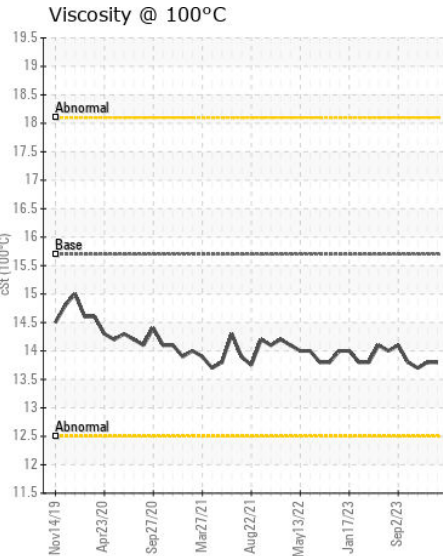
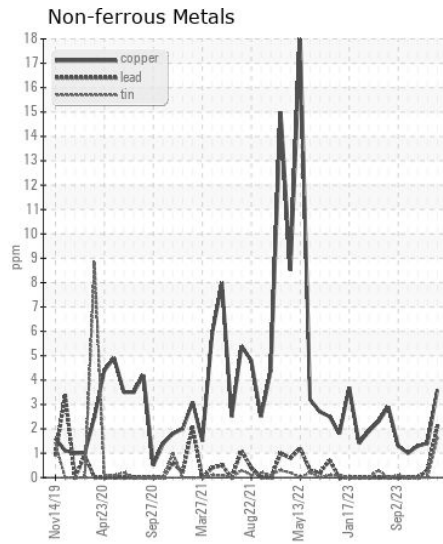
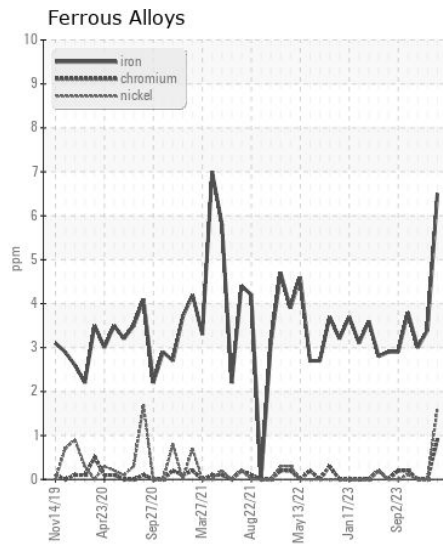
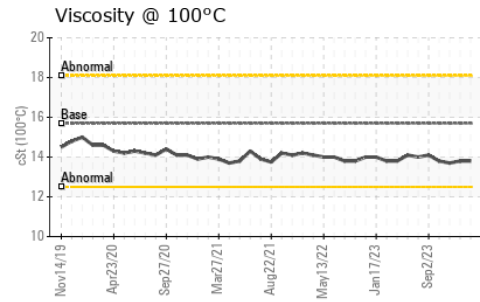
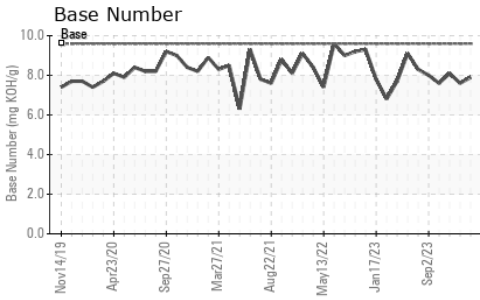
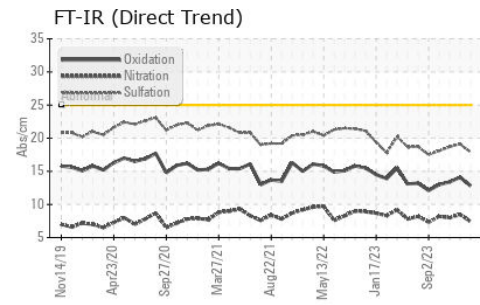
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	17	3	3
Potassium	ppm	ASTM D5185m	>20	4	2	2
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	7.4	8.5	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.9	19.1	18.7
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	>75	4	2	2
Boron	ppm	ASTM D5185m		114	82	88
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		33	31	32
Manganese	ppm	ASTM D5185m		2	0	0
Magnesium	ppm	ASTM D5185m		704	768	775
Calcium	ppm	ASTM D5185m		1531	1595	1605
Phosphorus	ppm	ASTM D5185m	1200	734	726	738
Zinc	ppm	ASTM D5185m	1300	813	854	863
Sulfur	ppm	ASTM D5185m	3200	3377	3165	3267
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.8	14.1	13.4
Base Number (BN)	mg KOH/g	ASTM D2896	9.6	7.9	7.6	8.1
Visc @ 100°C	cSt	ASTM D445	15.7	13.8	13.8	13.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0057870
Lab Number : 06152577
Unique Number : 10982655
Test Package : MAR 2

Received : 17 Apr 2024
Tested : 18 Apr 2024
Diagnosed : 22 Apr 2024 - Don Baldrige

MAGNOLIA MARINE TRANSPORT
 697 HAINING ROAD
 VICKSBURG, MS
 US 39183
 Contact: MMT MAINTENANCE PLANNERS
 mmtmaintenanceplanners@ergon.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)

T: x:
 F: (601)638-8028