



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		MW0057750	MW0057782	MW0057870
Sample Date		Client Info		22 May 2024	05 Apr 2024	13 Mar 2024
Machine Age	hrs	Client Info		1637	924	460
Oil Age	hrs	Client Info		464	924	460
Filter Age	hrs	Client Info		464	298	460
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	4	13	6
Chromium	ppm	ASTM D5185m	>8	0	1	<1
Nickel	ppm	ASTM D5185m	>2	0	2	2
Titanium	ppm	ASTM D5185m	>3	15	23	17
Silver	ppm	ASTM D5185m	>2	0	<1	<1
Aluminum	ppm	ASTM D5185m	>15	1	3	2
Lead	ppm	ASTM D5185m	>18	<1	2	2
Copper	ppm	ASTM D5185m	>80	2	5	4
Tin	ppm	ASTM D5185m	>14	<1	2	2
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.

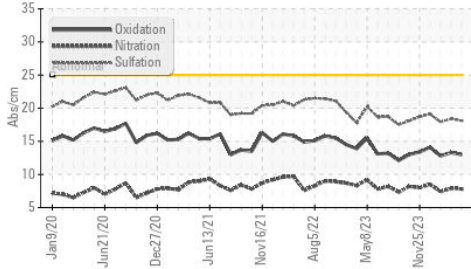
Silicon	ppm	ASTM D5185m	>20	6	20	17
Potassium	ppm	ASTM D5185m	>20	3	5	4
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.8	7.9	7.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.1	18.4	17.9
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

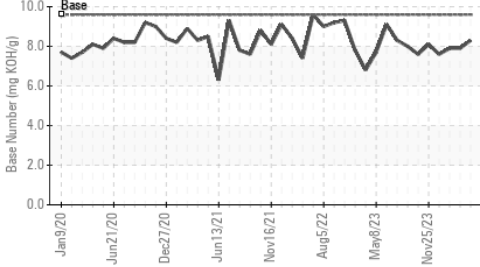
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>75	2	5	4
Boron	ppm	ASTM D5185m		89	154	114
Barium	ppm	ASTM D5185m		0	<1	0
Molybdenum	ppm	ASTM D5185m		29	44	33
Manganese	ppm	ASTM D5185m		<1	2	2
Magnesium	ppm	ASTM D5185m		657	1007	704
Calcium	ppm	ASTM D5185m		1544	2186	1531
Phosphorus	ppm	ASTM D5185m	1200	668	1112	734
Zinc	ppm	ASTM D5185m	1300	751	1181	813
Sulfur	ppm	ASTM D5185m	3200	3264	5278	3377
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.0	13.3	12.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.6	8.3	7.9	7.9
Visc @ 100°C	cSt	ASTM D445	15.7	13.8	13.8	13.8

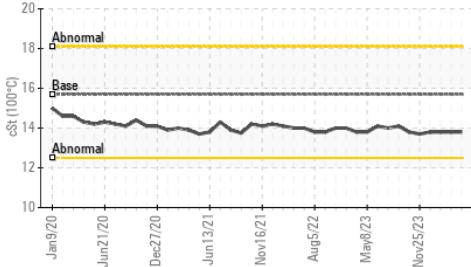
FT-IR (Direct Trend)



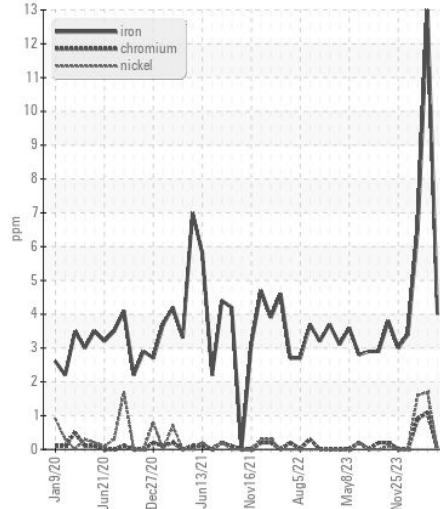
Base Number



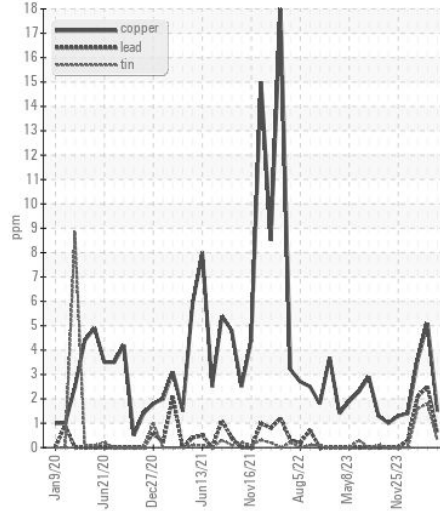
Viscosity @ 100°C



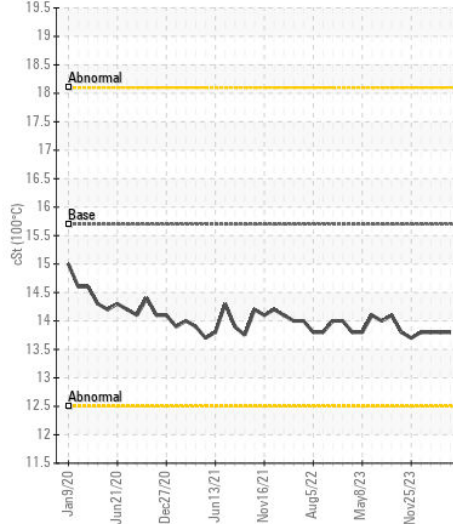
Ferrous Alloys



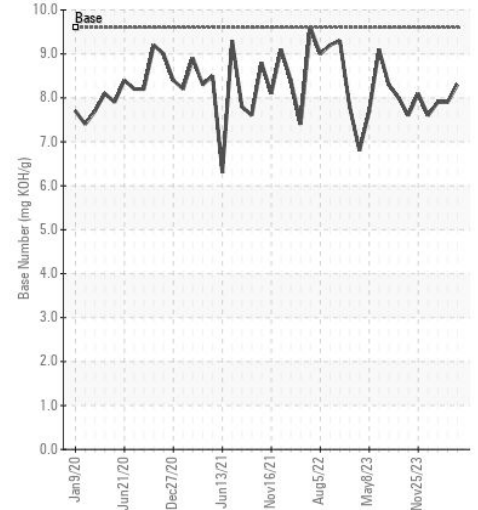
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0057750
Lab Number : 06196124
Unique Number : 11058247
Test Package : MAR 2

Received : 30 May 2024
Tested : 31 May 2024
Diagnosed : 02 Jun 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)

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