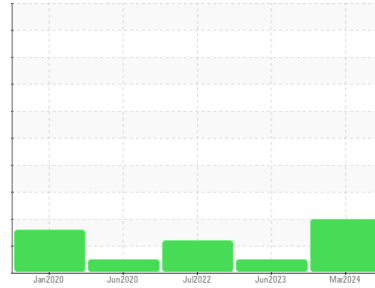




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area
MT
Machine Id
TEST CELL B11
Component
Hydraulic System
Fluid
MOBIL DTE 25 (30 GAL)

DIAGNOSIS

Recommendation

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0841239	WC0810902	WC0611429
Sample Date	Client Info	25 Mar 2024	19 Jun 2023	19 Jul 2022
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	Not Chngd	Not Chngd	Not Chngd
Sample Status		ABNORMAL	NORMAL	ATTENTION

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.05	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >40	3	3	3
Chromium	ppm ASTM D5185m >4	0	0	0
Nickel	ppm ASTM D5185m >20	0	0	0
Titanium	ppm ASTM D5185m	0	0	0
Silver	ppm ASTM D5185m	0	0	0
Aluminum	ppm ASTM D5185m >4	0	<1	<1
Lead	ppm ASTM D5185m >10	0	0	0
Copper	ppm ASTM D5185m >60	<1	<1	<1
Tin	ppm ASTM D5185m >4	0	0	0
Antimony	ppm ASTM D5185m	---	---	---
Vanadium	ppm ASTM D5185m	0	0	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	0	0	0
Barium	ppm ASTM D5185m	0	0	0
Molybdenum	ppm ASTM D5185m	0	0	0
Manganese	ppm ASTM D5185m	0	0	0
Magnesium	ppm ASTM D5185m	0	2	<1
Calcium	ppm ASTM D5185m	124	122	125
Phosphorus	ppm ASTM D5185m	453	481	480
Zinc	ppm ASTM D5185m	665	688	717
Sulfur	ppm ASTM D5185m	6551	6633	7316

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >20	0	<1	<1
Sodium	ppm ASTM D5185m	<1	<1	0
Potassium	ppm ASTM D5185m >20	0	0	1

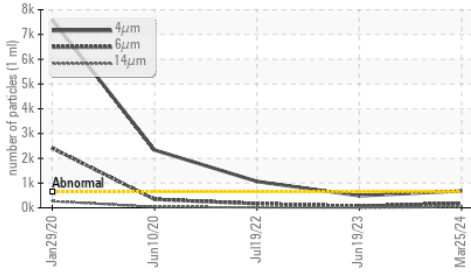
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >640	681	487	1064
Particles >6µm	ASTM D7647 >160	187	63	167
Particles >14µm	ASTM D7647 >20	31	3	15
Particles >21µm	ASTM D7647 >4	13	1	4
Particles >38µm	ASTM D7647 >3	1	0	1
Particles >71µm	ASTM D7647 >3	0	0	0
Oil Cleanliness	ISO 4406 (c) >16/14/11	17/15/12	16/13/9	17/15/11

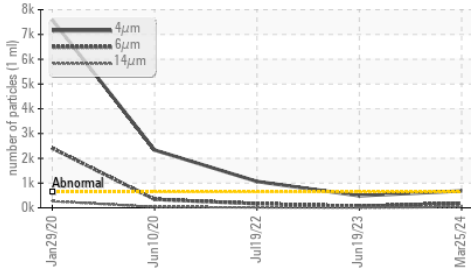


OIL ANALYSIS REPORT

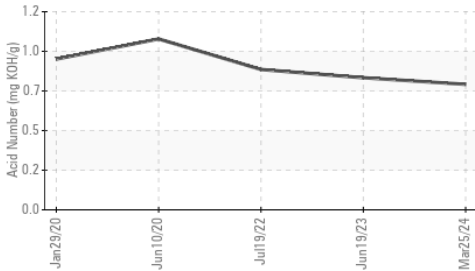
▲ Particle Trend



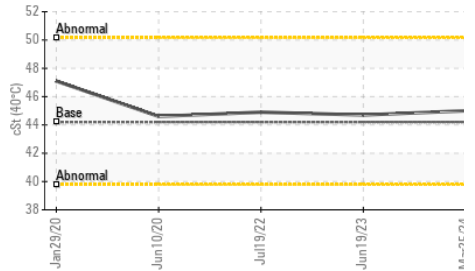
▲ Particle Trend



Acid Number



Viscosity @ 40°C



FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.76	0.80	0.85

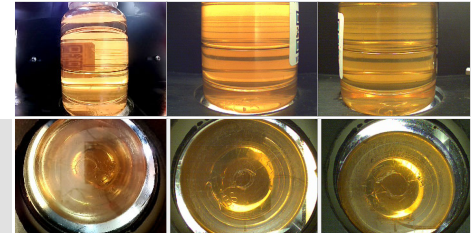
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45.0	44.7	44.9

SAMPLE IMAGES	method	limit/base	current	history1	history2
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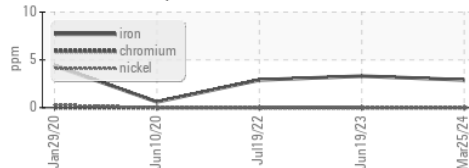
Color

Bottom

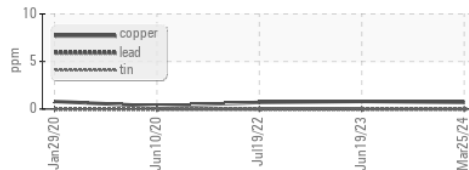


GRAPHS

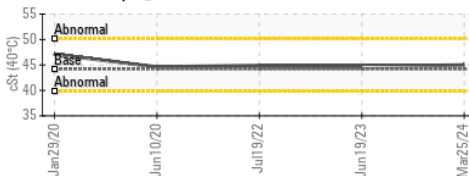
Ferrous Alloys



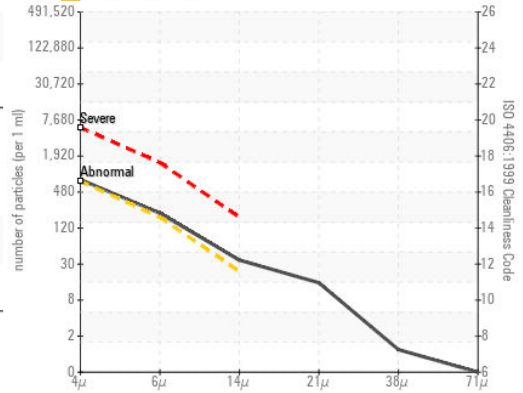
Non-ferrous Metals



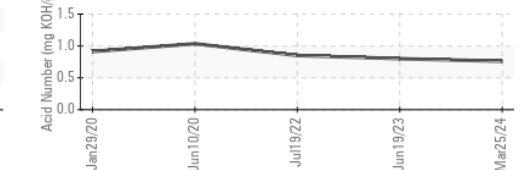
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0841239 **Received** : 29 Mar 2024
Lab Number : **06133985** **Tested** : 01 Apr 2024
Unique Number : 10953450 **Diagnosed** : 01 Apr 2024 - Wes Davis
Test Package : IND 2

Michelin Americas Research Company
 515 Michelin Road
 Greenville, SC
 US 29605
 Contact: Vince Wilson
 vince.wilson@michelin.com
 T: (864)422-3913
 F: (864)422-3518

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)