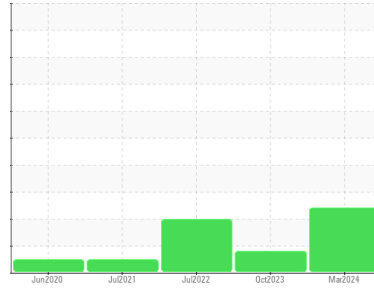




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
MT
Machine Id
TEST CELL A4 - 2
Component
Hydraulic System
Fluid
MOBIL DTE 25 (30 GAL)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

The copper level is abnormal. All other component wear rates are normal.

Contamination

There is a moderate amount of particulates present in the oil.

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	WC0841238	WC0810918	WC0611433
Sample Date	Client Info	25 Mar 2024	31 Oct 2023	28 Jul 2022
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	Not Changed	Not Changed	Not Changed
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL

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 >20	6	7	7
Chromium	ppm ASTM D5185m >20	0	<1	0
Nickel	ppm ASTM D5185m >20	<1	<1	0
Titanium	ppm ASTM D5185m	0	0	0
Silver	ppm ASTM D5185m	0	0	0
Aluminum	ppm ASTM D5185m >20	0	<1	<1
Lead	ppm ASTM D5185m >20	0	<1	<1
Copper	ppm ASTM D5185m >20	▲ 32	▲ 36	▲ 31
Tin	ppm ASTM D5185m >20	0	0	<1
Antimony	ppm ASTM D5185m	---	---	---
Vanadium	ppm ASTM D5185m	0	0	0
Cadmium	ppm ASTM D5185m	0	<1	<1

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	0	0	<1
Barium	ppm ASTM D5185m	0	<1	0
Molybdenum	ppm ASTM D5185m	0	0	0
Manganese	ppm ASTM D5185m	0	0	0
Magnesium	ppm ASTM D5185m	<1	1	1
Calcium	ppm ASTM D5185m	99	100	100
Phosphorus	ppm ASTM D5185m	408	402	419
Zinc	ppm ASTM D5185m	589	626	631
Sulfur	ppm ASTM D5185m	6189	6096	6874

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >15	<1	1	1
Sodium	ppm ASTM D5185m	2	0	0
Potassium	ppm ASTM D5185m >20	0	2	1

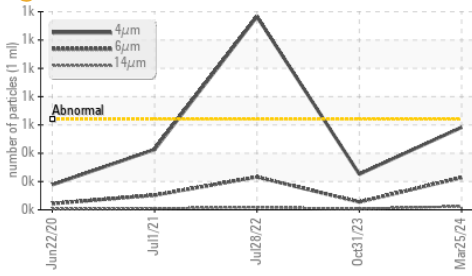
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >640	583	252	▲ 1365
Particles >6µm	ASTM D7647 >160	● 228	55	● 232
Particles >14µm	ASTM D7647 >20	● 24	7	17
Particles >21µm	ASTM D7647 >4	● 5	2	2
Particles >38µm	ASTM D7647 >3	0	0	0
Particles >71µm	ASTM D7647 >3	0	0	0
Oil Cleanliness	ISO 4406 (c) >16/14/11	● 16/15/12	15/13/10	▲ 18/15/11

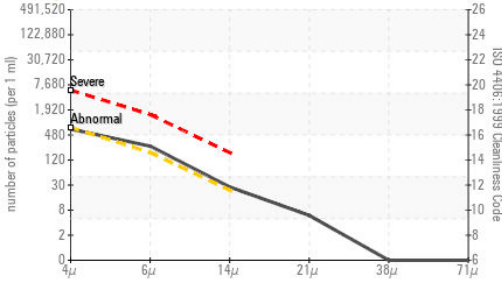


OIL ANALYSIS REPORT

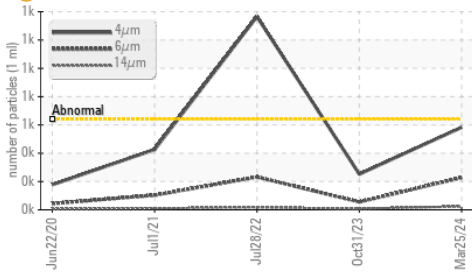
Particle Trend



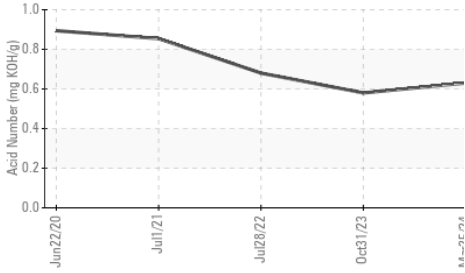
Particle Count



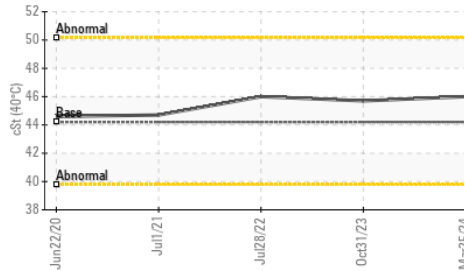
Particle Trend



Acid Number



Viscosity @ 40°C



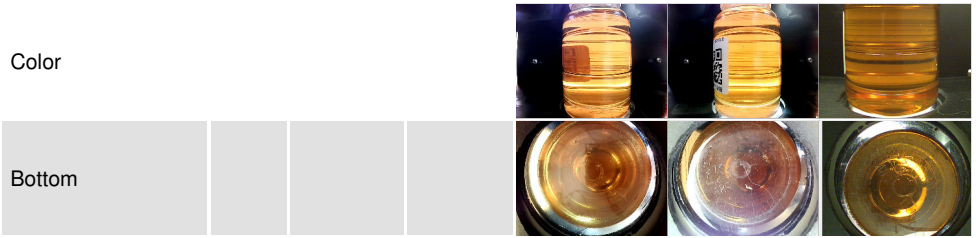
FLUID DEGRADATION

method	limit/base	current	history1	history2		
Acid Number (AN) mg KOH/g ASTM D8045		0.63	0.58	0.68		
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
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	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

FLUID PROPERTIES

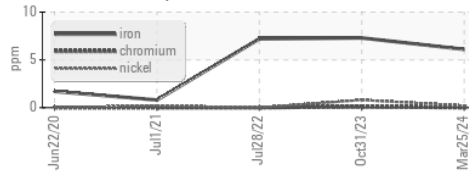
method	limit/base	current	history1	history2
Visc @ 40°C cSt ASTM D445	44.2	46.0	45.7	46.0

SAMPLE IMAGES

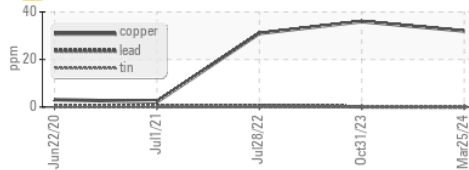


GRAPHS

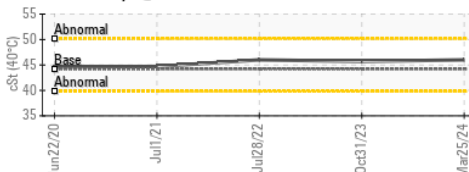
Ferrous Alloys



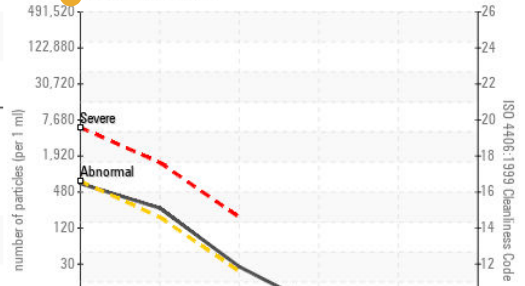
Non-ferrous Metals



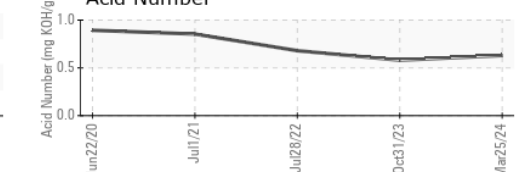
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

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

Sample No. : WC0841238

Lab Number : 06133984

Unique Number : 10953449

Test Package : IND 2

Received : 29 Mar 2024

Tested : 01 Apr 2024

Diagnosed : 03 Apr 2024 - Don Baldrige

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)