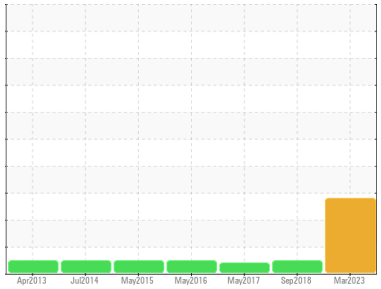
OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
CHW-025
Component
Hydraulic System
Fluid
MOBIL DTE 10 EXCEL 32 (--- GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear
The iron level is abnormal.

Contamination
There is a high 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		**WC0778741**	MHI020380	MHI009932
Sample Date		Client Info		**31 Mar 2023**	18 Sep 2018	31 May 2017
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	NORMAL	ATTENTION

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**11**	---	---
Iron	ppm	ASTM D5185m	>50	▲ **31**	2	2
Chromium	ppm	ASTM D5185m	>20	**0**	0	<1
Nickel	ppm	ASTM D5185m	>20	**0**	0	<1
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**0**	<1	0
Lead	ppm	ASTM D5185m	>20	**1**	1	<1
Copper	ppm	ASTM D5185m	>20	**2**	2	2
Tin	ppm	ASTM D5185m	>20	**0**	<1	<1
Antimony	ppm	ASTM D5185m		**---**	0	0
Vanadium	ppm	ASTM D5185m		**0**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

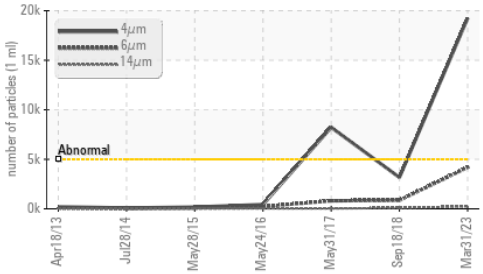
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	<1
Barium	ppm	ASTM D5185m		**0**	0	<1
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m		**1**	<1	6
Calcium	ppm	ASTM D5185m	120	**105**	116	94
Phosphorus	ppm	ASTM D5185m	475	**355**	481	510
Zinc	ppm	ASTM D5185m		**5**	34	211
Sulfur	ppm	ASTM D5185m	1275	**825**	1321	954

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>+30	**1**	0	2
Sodium	ppm	ASTM D5185m		**3**	3	3
Potassium	ppm	ASTM D5185m	>20	**1**	6	2
Water	%	ASTM D6304	>0.1	**0.011**	0.007	0.016
ppm Water	ppm	ASTM D6304	>1000	**118.3**	70	160

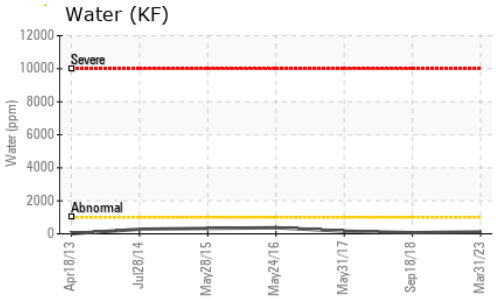
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **19244**	3171	8223
Particles >6µm		ASTM D7647	>1300	▲ **4187**	857	809
Particles >14µm		ASTM D7647	>160	▲ **242**	76	38
Particles >21µm		ASTM D7647	>40	▲ **54**	21	15
Particles >38µm		ASTM D7647	>10	**1**	0	4
Particles >71µm		ASTM D7647	>3	**0**	0	3
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **21/19/15**	19/17/13	20/17/12

OIL ANALYSIS REPORT

Particle Trend

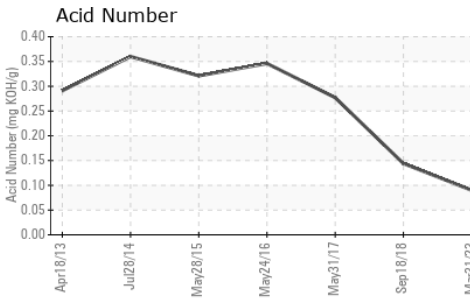


Water (KF)

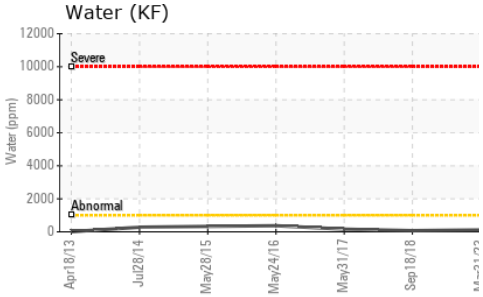


PQ

Acid Number



Water (KF)



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		**0.09**	0.144	0.277

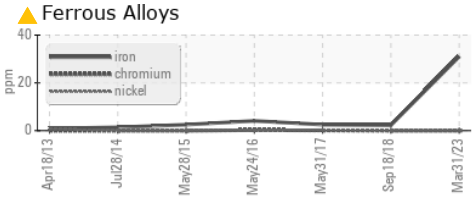
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**LIGHT**	NONE	NONE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	32	**31.3**	31.64	31.94

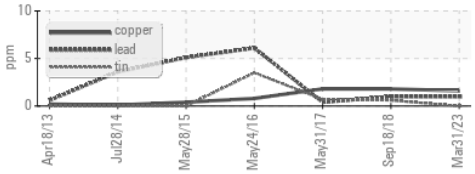
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

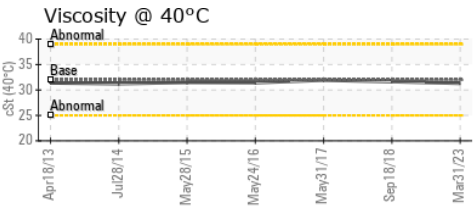
Ferrous Alloys



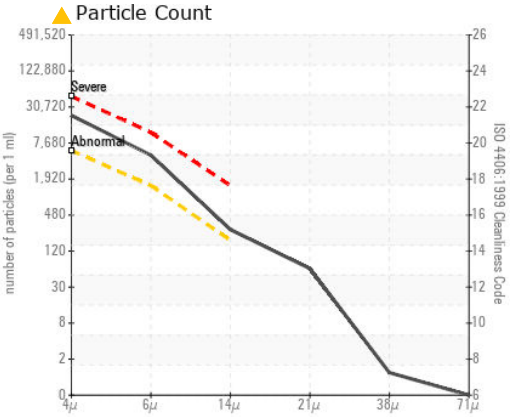
Non-ferrous Metals



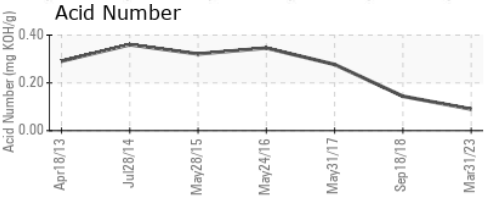
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0778741
Lab Number : 05818779
Unique Number : 10426862
Test Package : IND 2 (Additional Tests: KF, PQ)

Received : 13 Apr 2023
Tested : 14 Apr 2023
Diagnosed : 16 Apr 2023 - Doug Bogart

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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