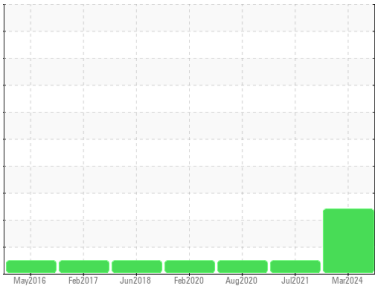
OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Machine Id
10486 KOMATSU HD465 10486
Component
Transmission
Fluid
SHELL ROTELLA T3 15W40 (--- QTS)

DIAGNOSIS

Recommendation
We advise that you check for the source of water entry. The fluid 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 concentration of water present in the fluid.

Fluid Condition
The condition of the fluid is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**DJJ0021059**	DJJ0005499	DJJ0003306
Sample Date		Client Info		**27 Mar 2024**	06 Jul 2021	25 Aug 2020
Machine Age	hrs	Client Info		**46483**	34975	31895
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**Changed**	N/A	N/A
Sample Status				**ABNORMAL**	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	**6**	5	5
Chromium	ppm	ASTM D5185m	>10	**0**	0	<1
Nickel	ppm	ASTM D5185m		**<1**	0	<1
Titanium	ppm	ASTM D5185m		**0**	<1	<1
Silver	ppm	ASTM D5185m		**0**	0	<1
Aluminum	ppm	ASTM D5185m	>50	**1**	0	3
Lead	ppm	ASTM D5185m	>50	**4**	<1	<1
Copper	ppm	ASTM D5185m	>200	▲ **230**	6	7
Tin	ppm	ASTM D5185m	>10	**0**	<1	<1
Antimony	ppm	ASTM D5185m		**---**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	<1

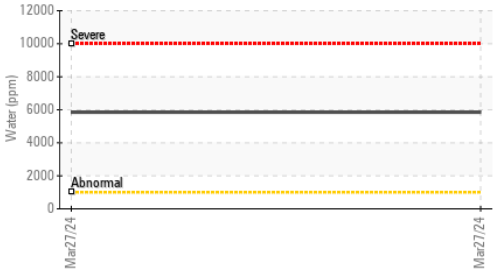
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	10	**44**	167	222
Barium	ppm	ASTM D5185m	0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	10	**10**	2	3
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	10	**49**	18	29
Calcium	ppm	ASTM D5185m	2600	**2112**	1413	2147
Phosphorus	ppm	ASTM D5185m	1050	**1023**	764	1006
Zinc	ppm	ASTM D5185m	1250	**1226**	844	1168
Sulfur	ppm	ASTM D5185m	3900	**4886**	2319	3605

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	**4**	6	8
Sodium	ppm	ASTM D5185m		**4**	<1	1
Potassium	ppm	ASTM D5185m	>20	**3**	3	6
Water	%	ASTM D6304	>0.1	▲ **0.585**	---	---
ppm Water	ppm	ASTM D6304	>1000	▲ **5850**	---	---

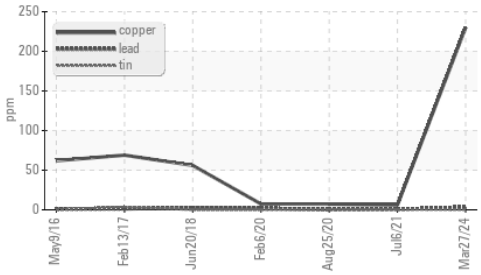
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	▲ **0.2%**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

OIL ANALYSIS REPORT

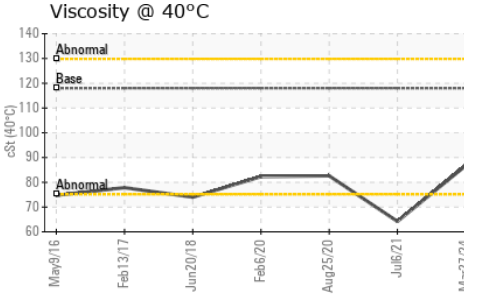
Water (KF)



Non-ferrous Metals



Viscosity @ 40°C

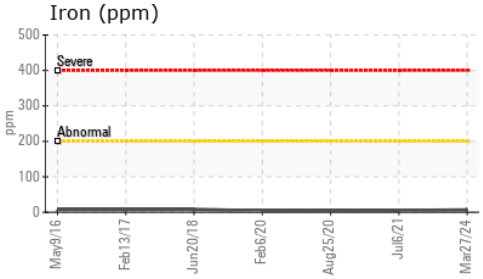


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	118	**86.7**	64.2	82.6

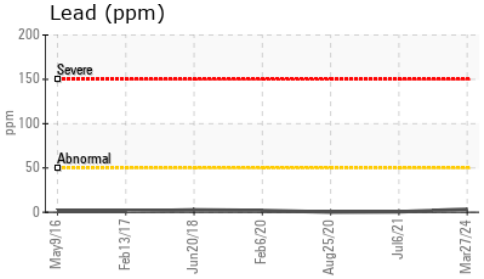
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*no image*	*no image*	*no image*
Bottom			*no image*	*no image*	*no image*

GRAPHS

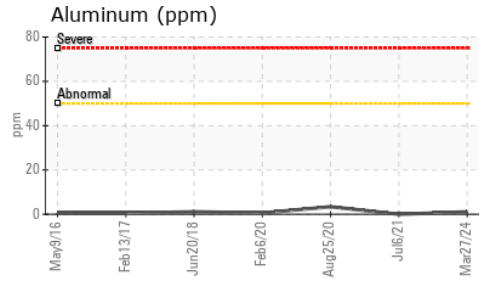
Iron (ppm)



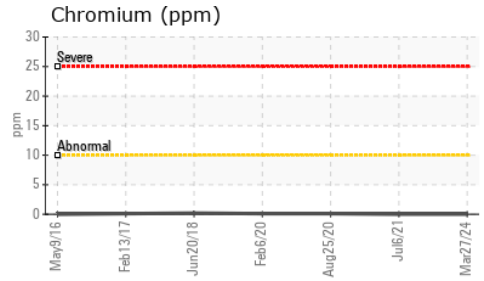
Lead (ppm)



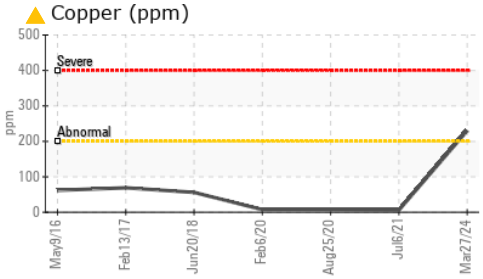
Aluminum (ppm)



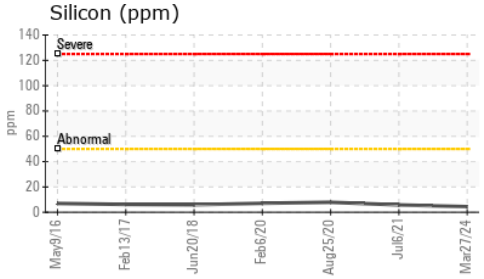
Chromium (ppm)



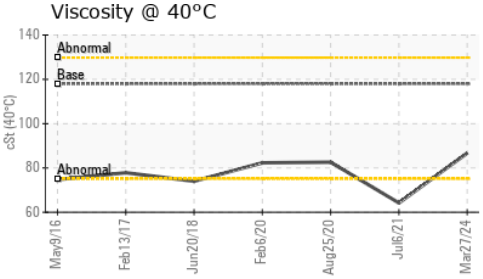
Copper (ppm)



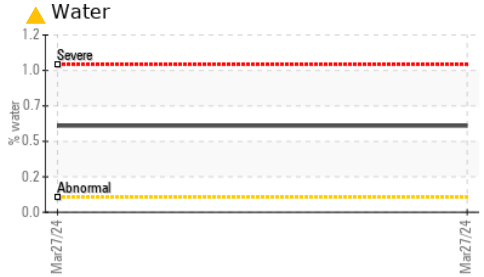
Silicon (ppm)



Viscosity @ 40°C



Water



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0021059
Lab Number : 06133733
Unique Number : 10953198
Test Package : MOBCE (Additional Tests: KF)

Received : 29 Mar 2024
Tested : 03 Apr 2024
Diagnosed : 03 Apr 2024 - Sean Felton

Certificate L2367

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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)