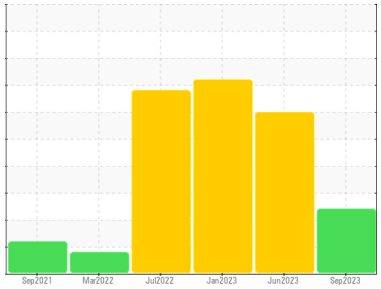
OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION

Area
DICK LAVY
Machine Id
DICK LAVY 4835
Component
Transmission (Manual)
Fluid
NOT GIVEN (--- GAL)

DIAGNOSIS

Recommendation
The oil is near the end of it`s useful service life, recommend schedule an oil change. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear
All component wear rates are normal.

Contamination
There is a high amount of silt (particulates < 14 microns in size) present in the fluid.

Fluid Condition
The AN level is at the top-end of the recommended limit.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0853953**	WC0828783	WC0771151
Sample Date		Client Info		**06 Sep 2023**	24 Jun 2023	05 Jan 2023
Machine Age	mls	Client Info		**300200**	270439	208827
Oil Age	mls	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	SEVERE	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	**12**	119	104
Chromium	ppm	ASTM D5185m	>5	**0**	2	2
Nickel	ppm	ASTM D5185m	>5	**0**	<1	<1
Titanium	ppm	ASTM D5185m		**<1**	<1	<1
Silver	ppm	ASTM D5185m	>7	**0**	0	0
Aluminum	ppm	ASTM D5185m	>25	**2**	10	11
Lead	ppm	ASTM D5185m	>45	**2**	16	1
Copper	ppm	ASTM D5185m	>225	**124**	⬢ 1657	⬢ 1286
Tin	ppm	ASTM D5185m	>10	**<1**	0	<1
Vanadium	ppm	ASTM D5185m		**<1**	<1	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**219**	215	222
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**<1**	3	3
Manganese	ppm	ASTM D5185m		**2**	21	20
Magnesium	ppm	ASTM D5185m		**<1**	4	2
Calcium	ppm	ASTM D5185m		**53**	207	206
Phosphorus	ppm	ASTM D5185m		**1204**	1168	1102
Zinc	ppm	ASTM D5185m		**21**	178	120
Sulfur	ppm	ASTM D5185m		**509**	1051	1266

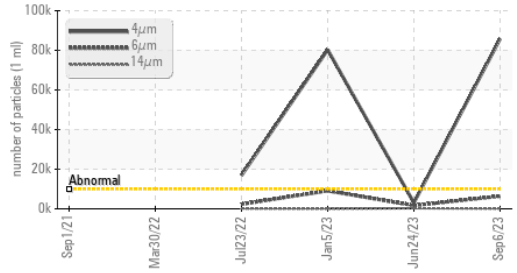
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>125	**2**	12	10
Sodium	ppm	ASTM D5185m		**2**	2	1
Potassium	ppm	ASTM D5185m	>20	**4**	1	<1
Water	%	ASTM D6304	>0.1	**0.098**	0.056	0.015
ppm Water	ppm	ASTM D6304	>1000	**986.3**	563.3	156.3

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ **85778**	3045	▲ 80274
Particles >6µm		ASTM D7647	>2500	▲ **6390**	1659	▲ 9120
Particles >14µm		ASTM D7647	>320	**101**	282	68
Particles >21µm		ASTM D7647	>80	**22**	95	5
Particles >38µm		ASTM D7647	>20	**1**	15	0
Particles >71µm		ASTM D7647	>4	**0**	1	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	▲ **24/20/14**	19/18/15	▲ 24/20/13

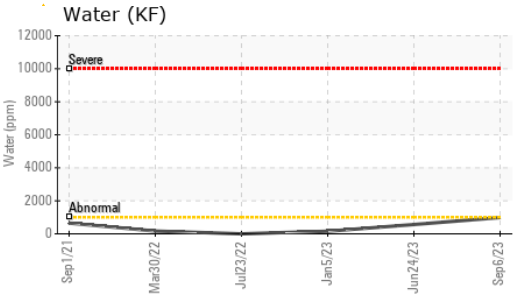
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		▲ **4.73**	3.08	2.22

OIL ANALYSIS REPORT

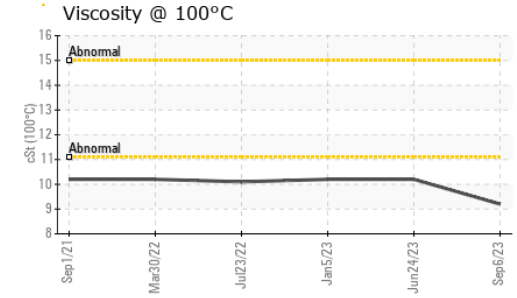
Particle Trend



Water (KF)

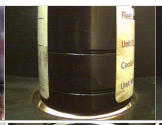
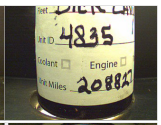
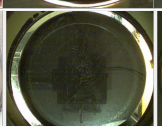
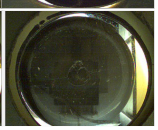


Viscosity @ 100°C



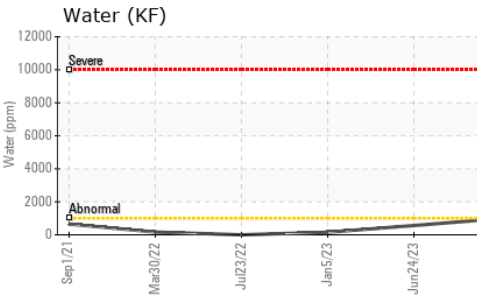
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		**51.4**	59.1	59.5
Visc @ 100°C	cSt	ASTM D445		**9.2**	10.2	10.2
Viscosity Index (VI)	Scale	ASTM D2270		**162**	161	160

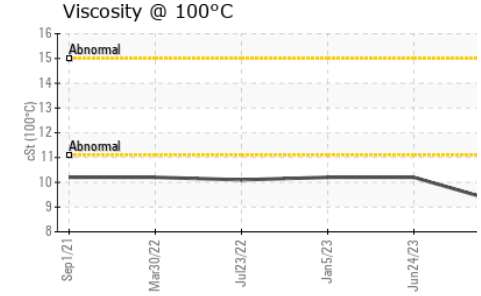
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

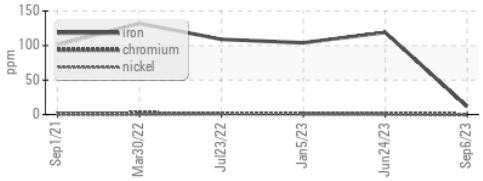
Water (KF)



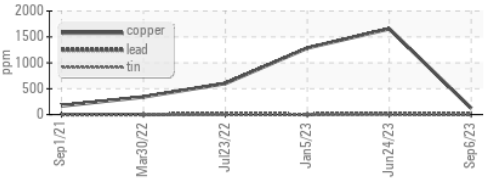
Viscosity @ 100°C



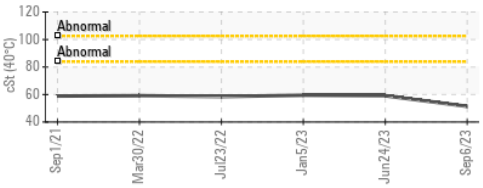
Ferrous Alloys



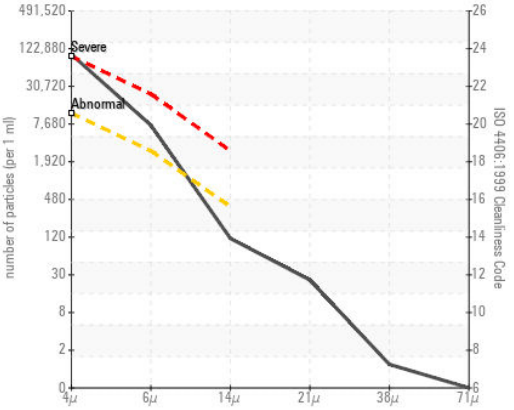
Non-ferrous Metals



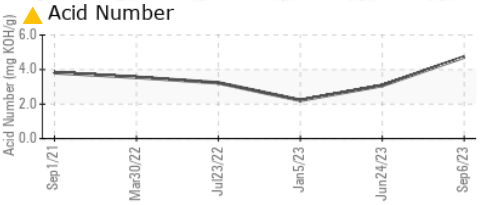
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0853953 **Received** : 01 Nov 2023
Lab Number : 05996281 **Diagnosed** : 06 Nov 2023
Unique Number : 10724641 **Diagnostician** : Jonathan Hester
Test Package : MOB 2 (Additional Tests: KF, KV100, PrtCount, VI)

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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