OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Mobile Fleet
Machine Id
6458 6458
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 10W30 (8 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

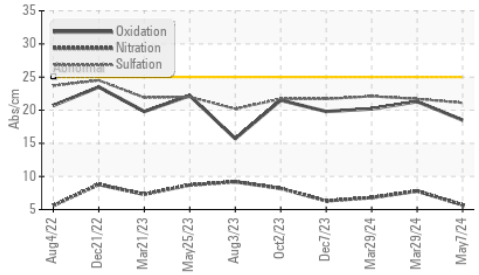
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

FLUID CONDITION

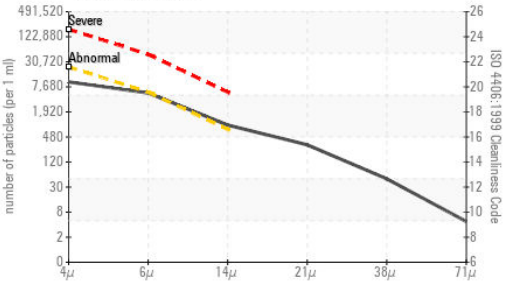
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**WC0939339**	WC0919023	WC0918669
Sample Date		Client Info		**07 May 2024**	29 Mar 2024	29 Mar 2024
Machine Age	hrs	Client Info		**2987**	2800	1701
Oil Age	hrs	Client Info		**186**	315	241
Filter Age	hrs	Client Info		**186**	315	241
Oil Changed		Client Info		**Not Changd**	Changed	Not Changd
Filter Changed		Client Info		**Not Changd**	Changed	Not Changd
Sample Status				**NORMAL**	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>100	**6**	11	11
Chromium	ppm	ASTM D5185m	>20	**<1**	1	<1
Nickel	ppm	ASTM D5185m	>4	**<1**	0	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**5**	9	6
Lead	ppm	ASTM D5185m	>40	**<1**	<1	<1
Copper	ppm	ASTM D5185m	>330	**14**	43	35
Tin	ppm	ASTM D5185m	>15	**1**	<1	0
Vanadium	ppm	ASTM D5185m		**<1**	<1	<1
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	**7**	5	5
Potassium	ppm	ASTM D5185m	>20	**10**	19	10
Fuel		WC Method	>5	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG
Soot %	%	*ASTM D7844	>3	**0.1**	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	**5.7**	7.8	6.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	**21.1**	21.7	22.1
Particles >4µm		ASTM D7647	>20000	**8769**	3358	▲ 22680
Particles >6µm		ASTM D7647	>5000	**4777**	1829	▲ 12355
Particles >14µm		ASTM D7647	>640	**813**	311	▲ 2103
Particles >21µm		ASTM D7647	>160	**274**	105	▲ 708
Particles >38µm		ASTM D7647	>40	**42**	16	▲ 109
Particles >71µm		ASTM D7647	>10	**4**	2	▲ 11
Oil Cleanliness		ISO 4406 (c)	>21/19/16	**20/19/17**	19/18/15	▲ 22/21/18
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	>0.2	**NEG**	NEG	NEG
Sodium	ppm	ASTM D5185m		**0**	2	2
Boron	ppm	ASTM D5185m	250	**61**	37	52
Barium	ppm	ASTM D5185m	10	**2**	0	0
Molybdenum	ppm	ASTM D5185m	100	**53**	53	46
Manganese	ppm	ASTM D5185m		**<1**	<1	<1
Magnesium	ppm	ASTM D5185m	450	**483**	519	508
Calcium	ppm	ASTM D5185m	3000	**1627**	1789	1748
Phosphorus	ppm	ASTM D5185m	1150	**727**	706	715
Zinc	ppm	ASTM D5185m	1350	**860**	880	875
Sulfur	ppm	ASTM D5185m	4250	**2468**	2621	2797
Oxidation	Abs/.1mm	*ASTM D7414	>25	**18.5**	21.3	20.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	**9.7**	8.8	9.6
Visc @ 100°C	cSt	ASTM D445	10.9	**11.2**	13.5	11.1

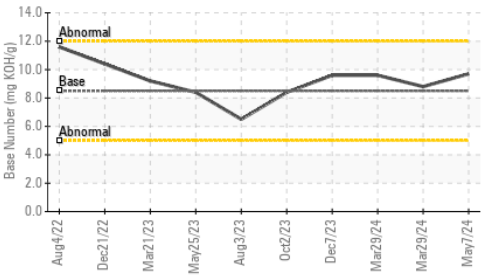
FT-IR (Direct Trend)



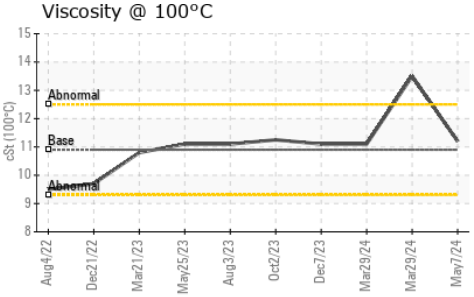
Particle Count



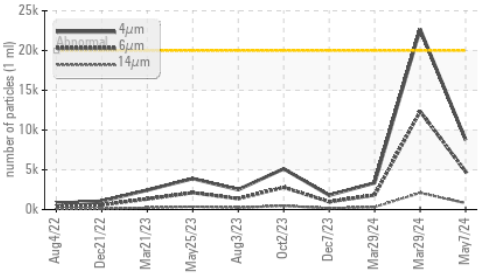
Base Number



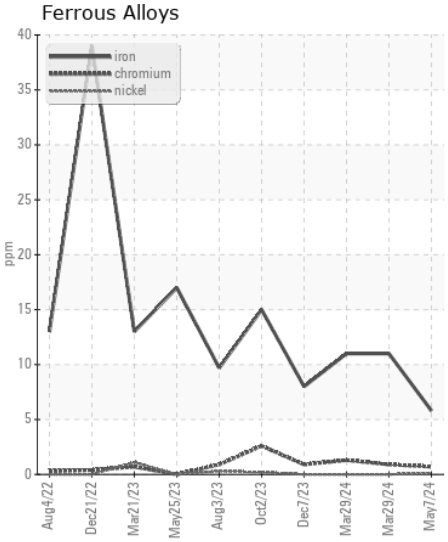
Viscosity @ 100°C



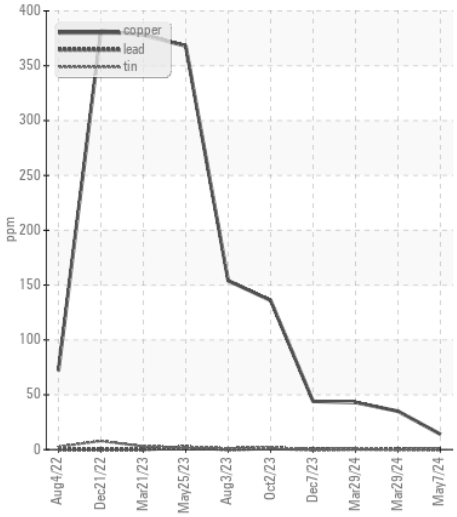
Particle Trend



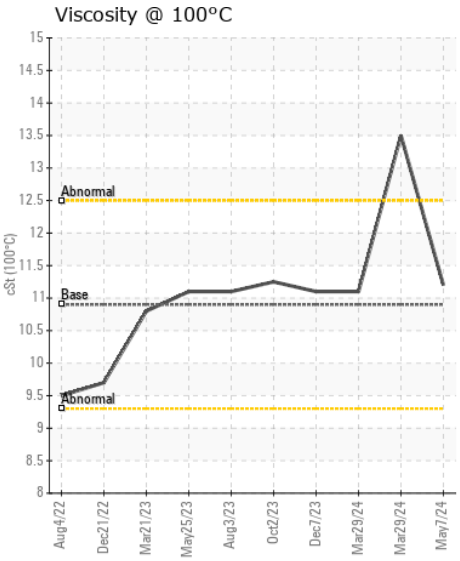
Ferrous Alloys



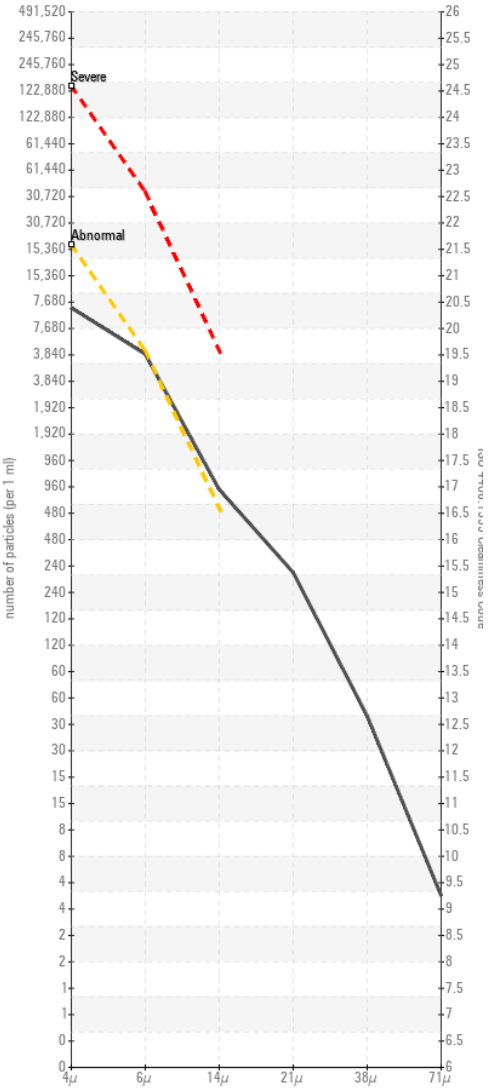
Non-ferrous Metals



Viscosity @ 100°C



Particle Count



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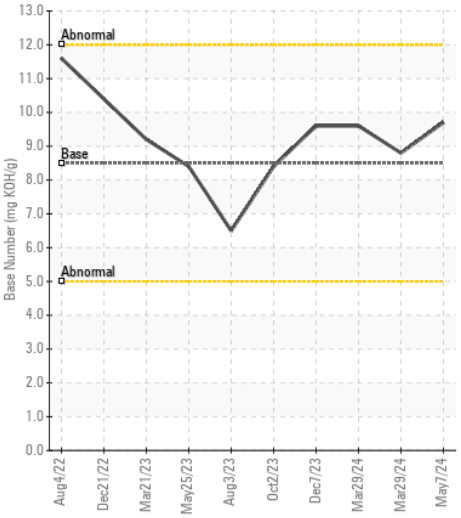

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0939339
Lab Number : 06176636
Unique Number : 11022689
Test Package : CONST (Additional Tests: PrtCount, TBN)

Received : 10 May 2024
Tested : 15 May 2024
Diagnosed : 15 May 2024 - Sean Felton

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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