CONST

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
Contracting
Machine Id
5512 5512
Component
Diesel Engine
Fluid
MOBIL 15W40 (6 GAL)

RECOMMENDATION

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

WEAR

All component wear rates are normal.

CONTAMINATION

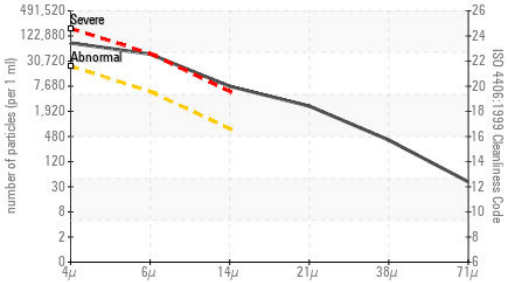
There is a high amount of particulates present in the oil.

FLUID CONDITION

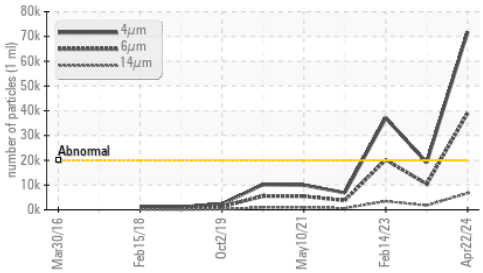
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0918763	WC0819189	WC0784524
Sample Date		Client Info		22 Apr 2024	09 Aug 2023	14 Feb 2023
Machine Age	hrs	Client Info		8132	7620	7023
Oil Age	hrs	Client Info		512	646	708
Filter Age	hrs	Client Info		512	646	708
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>51	28	31	44
Chromium	ppm	ASTM D5185m	>11	<1	<1	1
Nickel	ppm	ASTM D5185m	>5	0	1	4
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	2	3	3
Lead	ppm	ASTM D5185m	>26	0	0	<1
Copper	ppm	ASTM D5185m	>26	2	3	8
Tin	ppm	ASTM D5185m	>4	<1	1	2
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>22	7	7	8
Potassium	ppm	ASTM D5185m	>20	0	2	4
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.9	1	1.3
Nitration	Abs/cm	*ASTM D7624	>20	10.2	10.9	12.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.0	23.0	24.0
Particles >4µm		ASTM D7647	>20000	▲ 71850	19078	▲ 37078
Particles >6µm		ASTM D7647	>5000	▲ 39141	▲ 10393	▲ 20199
Particles >14µm		ASTM D7647	>640	▲ 6661	▲ 1769	▲ 3438
Particles >21µm		ASTM D7647	>160	▲ 2244	▲ 596	▲ 1158
Particles >38µm		ASTM D7647	>40	▲ 346	▲ 92	▲ 179
Particles >71µm		ASTM D7647	>10	▲ 35	9	▲ 18
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 23/22/20	▲ 21/21/18	▲ 22/22/19
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	>0.21	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m	>118	2	5	4
Boron	ppm	ASTM D5185m		20	24	19
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		52	57	43
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m		595	614	552
Calcium	ppm	ASTM D5185m		1780	1888	1651
Phosphorus	ppm	ASTM D5185m		822	850	771
Zinc	ppm	ASTM D5185m		990	1033	952
Sulfur	ppm	ASTM D5185m		2691	3154	2723
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.8	22.1	21.2
Base Number (BN)	mg KOH/g	ASTM D2896		8.4	8.2	7.9
Visc @ 100°C	cSt	ASTM D445		13.1	13.0	13.5

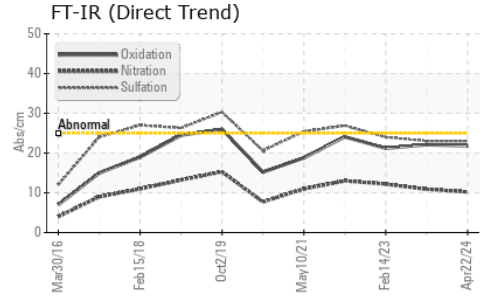
Particle Count



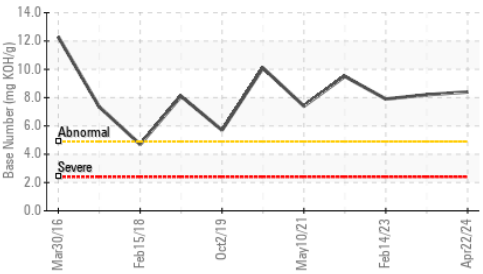
Particle Trend



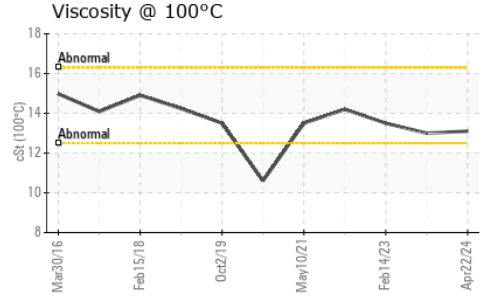
FT-IR (Direct Trend)



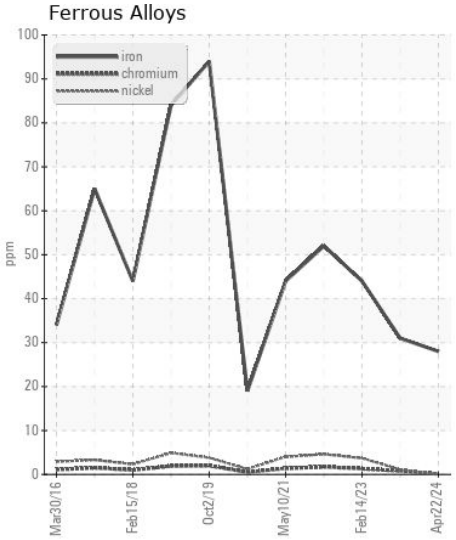
Base Number



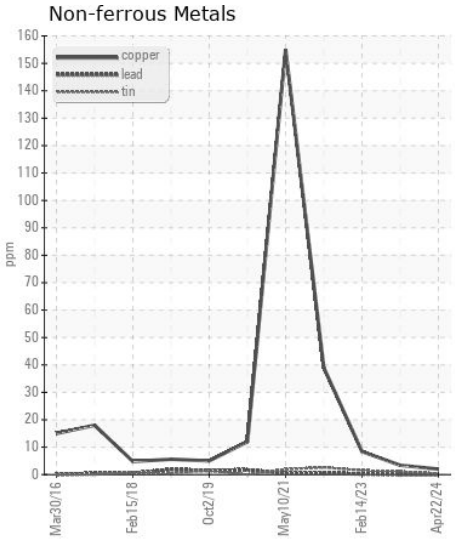
Viscosity @ 100°C



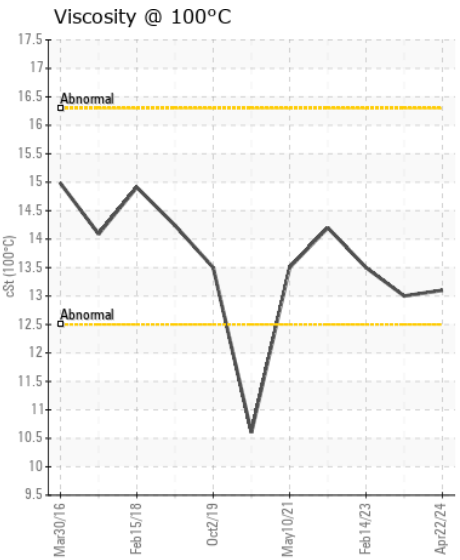
Ferrous Alloys



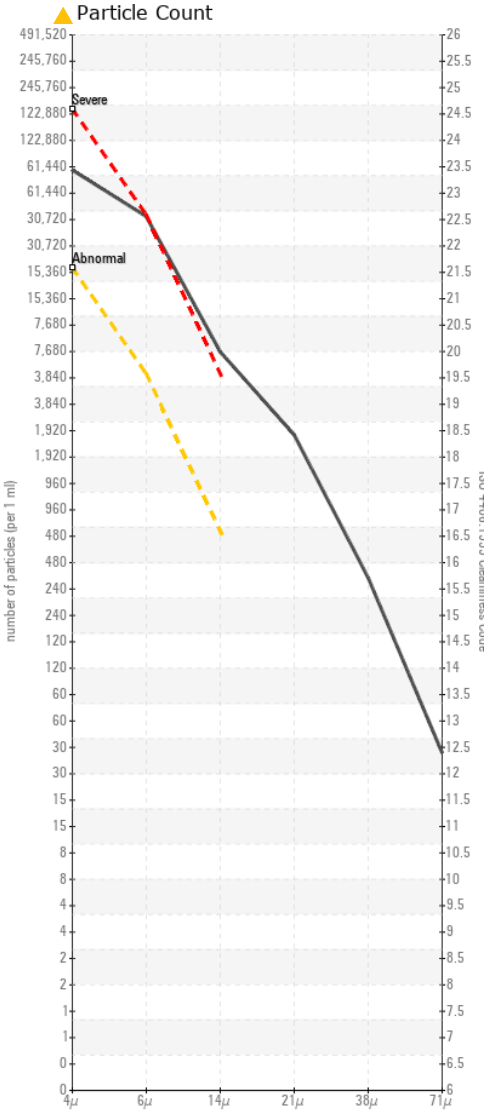
Non-ferrous Metals



Viscosity @ 100°C



Particle Count



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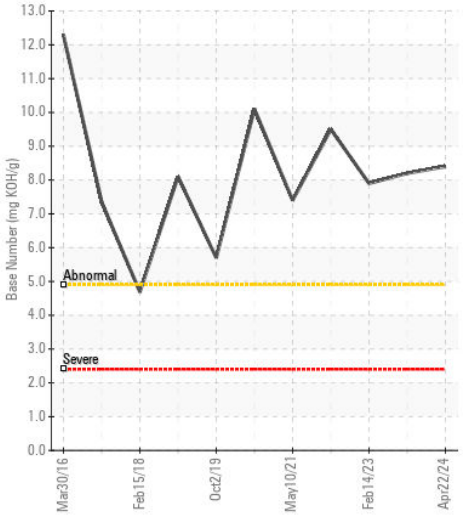

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0918763
Lab Number : 06158954
Unique Number : 10994377
Test Package : CONST (Additional Tests: PrtCount, TBN)

Received : 24 Apr 2024
Tested : 25 Apr 2024
Diagnosed : 25 Apr 2024 - Don Baldridge

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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