FLEET IDEALEASE

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Area
4470
Machine Id
441350
Component
Front Center Diesel Engine
Fluid
MOBIL 15W40 (21 QTS)

RECOMMENDATION

The oil is near the end of it's useful service life, recommend schedule an oil change. No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

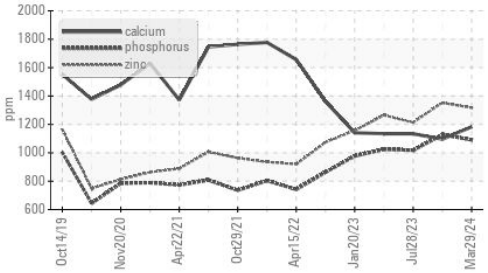
Light fuel dilution occurring. No other contaminants were detected in the oil.

FLUID CONDITION

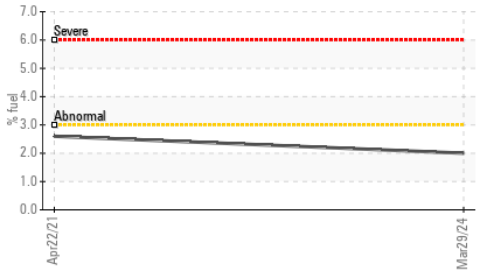
Magnesium ppm levels are abnormally high. Calcium ppm levels are abnormally low. The BN result indicates that there is suitable alkalinity remaining in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL0033716	IL0030505	IL0030451
Sample Date		Client Info		29 Mar 2024	01 Nov 2023	28 Jul 2023
Machine Age	mls	Client Info		168569	152777	142304
Oil Age	mls	Client Info		158096	10473	82037
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>90	26	12	15
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	7	4	6
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	0
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	>25	5	4	4
Potassium	ppm	ASTM D5185m	>20	3	0	6
Fuel	%	ASTM D3524	>3.0	▲ 2.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.7	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	11.1	9.8	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	20.3	19.9
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	>118	2	0	0
Boron	ppm	ASTM D5185m		3	3	4
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		69	66	65
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		▲ 1013	1016	936
Calcium	ppm	ASTM D5185m		▲ 1183	1096	1134
Phosphorus	ppm	ASTM D5185m		1091	1128	1018
Zinc	ppm	ASTM D5185m		1317	1352	1213
Sulfur	ppm	ASTM D5185m		3725	3318	3222
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.1	17.7	16.0
Base Number (BN)	mg KOH/g	ASTM D2896		7.1	8.4	9.0
Visc @ 100°C	cSt	ASTM D445		12.4	12.9	12.8

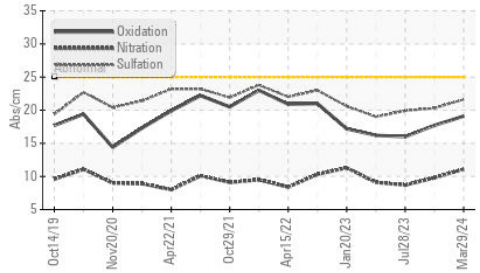
Additives



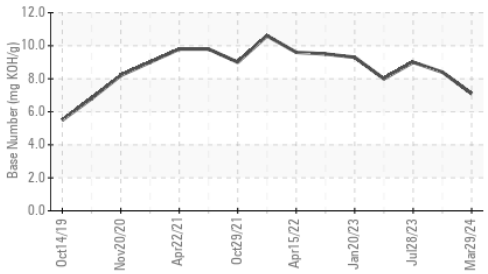
Fuel Dilution



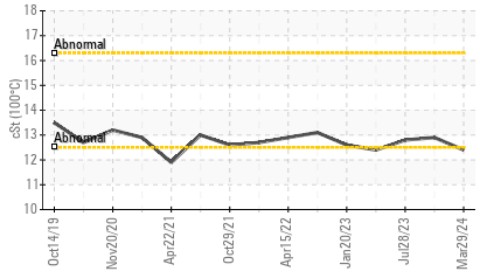
FT-IR (Direct Trend)



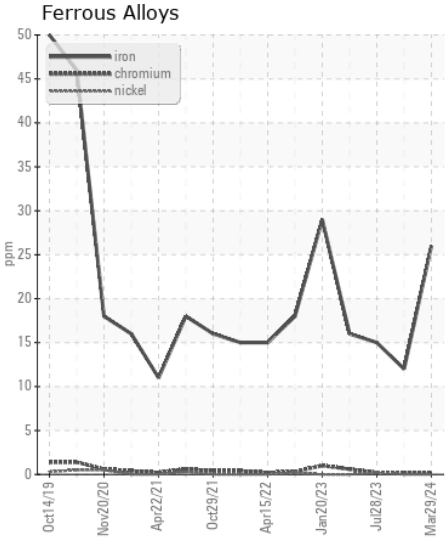
Base Number



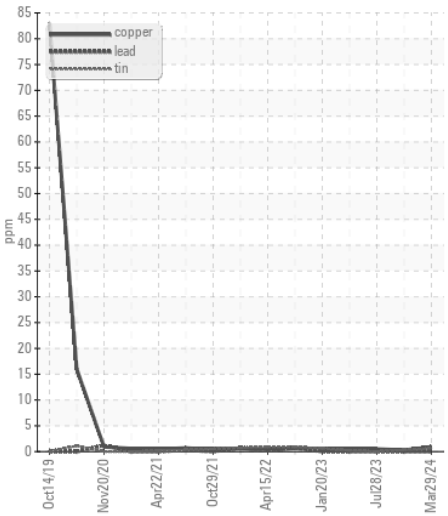
Viscosity @ 100°C



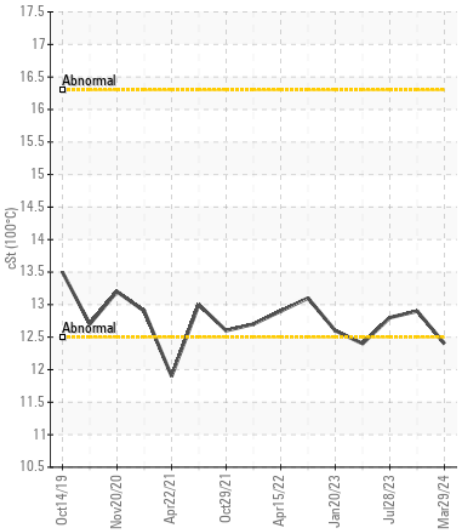
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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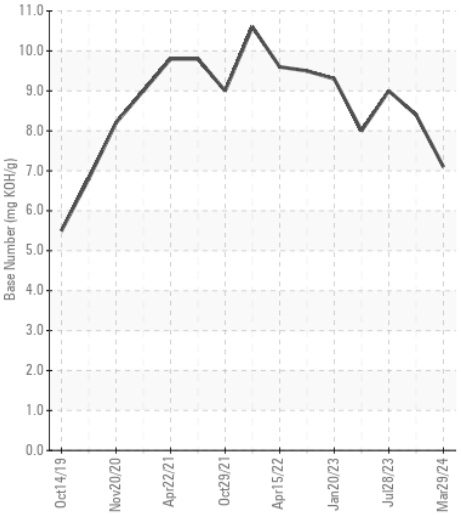

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL0033716
Lab Number : 06161179
Unique Number : 10996602
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 26 Apr 2024
Tested : 29 Apr 2024
Diagnosed : 29 Apr 2024 - Wes Davis

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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