



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
INTERNATIONAL 441324

Component
Diesel Engine

Fluid
MOBIL 15W40 (21 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL0030585	IL0030550	IL0030460
Sample Date		Client Info		11 Jan 2024	04 Dec 2023	14 Aug 2023
Machine Age	mls	Client Info		174027	162596	130412
Oil Age	mls	Client Info		0	104956	92805
Filter Age	mls	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>130	18	25	22
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	9	7
Lead	ppm	ASTM D5185m	>20	0	0	<1
Copper	ppm	ASTM D5185m	>125	<1	1	3
Tin	ppm	ASTM D5185m	>4	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Tests indicate that there is no fuel present in the oil. There is no indication of any contamination in the oil.

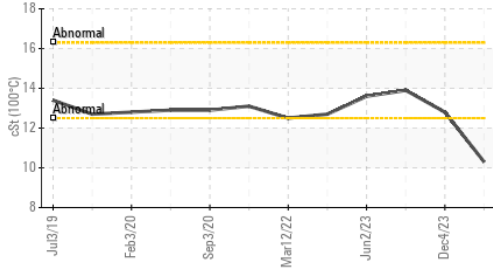
Silicon	ppm	ASTM D5185m	>25	6	8	6
Potassium	ppm	ASTM D5185m	>20	4	14	12
Fuel	%	ASTM D3524	>3.0	0.5	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.3	0.7	0.2
Nitration	Abs/cm	*ASTM D7624	>20	13.9	11.5	13.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.9	22.3	25.5
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

FLUID CONDITION

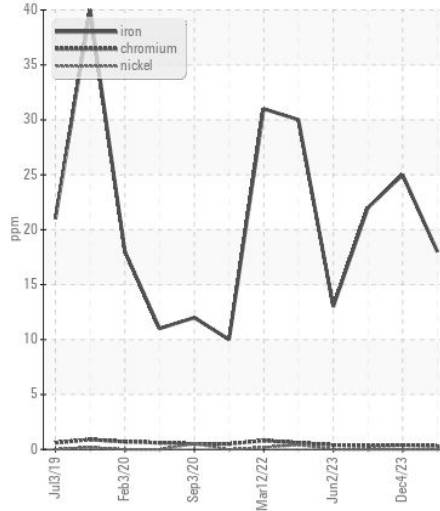
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>118	3	2	13
Boron	ppm	ASTM D5185m		16	2	20
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		62	65	57
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		745	969	606
Calcium	ppm	ASTM D5185m		1641	1069	2306
Phosphorus	ppm	ASTM D5185m		1106	1010	1212
Zinc	ppm	ASTM D5185m		1342	1270	1473
Sulfur	ppm	ASTM D5185m		3213	3320	4269
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.8	19.5	22.3
Base Number (BN)	mg KOH/g	ASTM D2896		8.1	7.9	6.9
Visc @ 100°C	cSt	ASTM D445		▲ 10.3	12.8	13.9

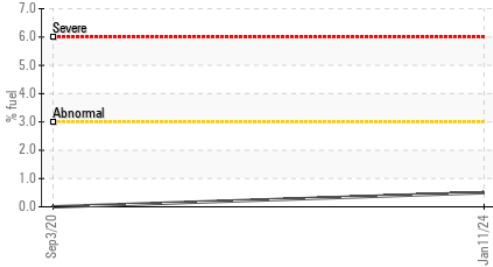
▲ Viscosity @ 100°C



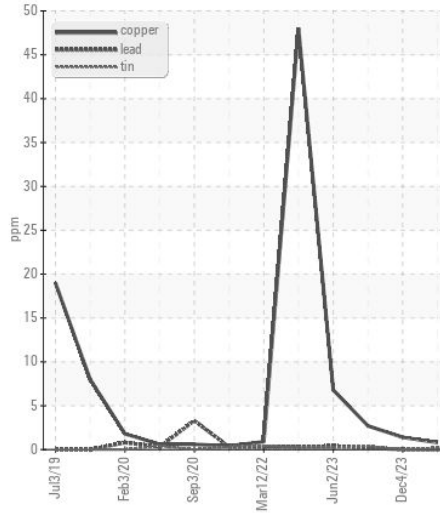
Ferrous Alloys



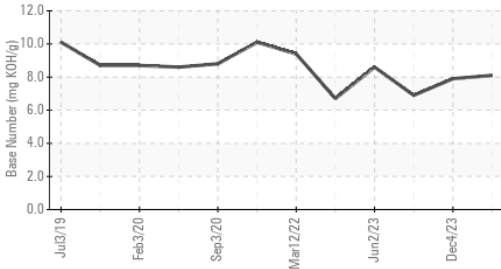
Fuel Dilution



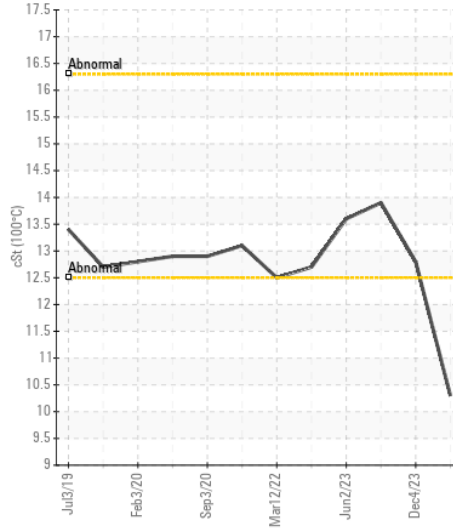
Non-ferrous Metals



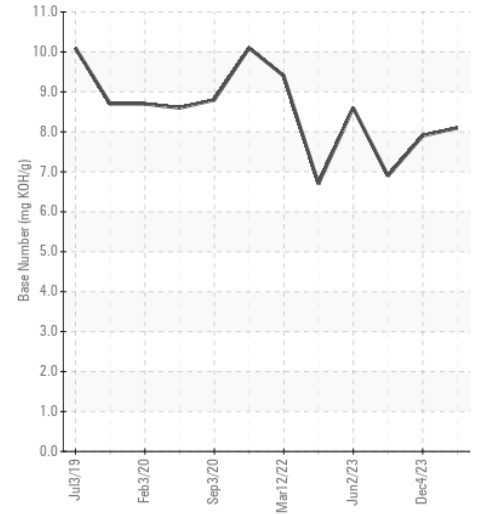
Base Number



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL0030585 **Received** : 18 Jan 2024
Lab Number : 06064825 **Diagnosed** : 24 Jan 2024
Unique Number : 10836207 **Diagnostician** : Angela Borella
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

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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)