



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
{UNASSIGNED}
Machine Id
INTERNATIONAL 441387
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		IL0033724	IL0030588	IL0026614
Sample Date		Client Info		01 May 2024	17 Jan 2024	27 Dec 2022
Machine Age	mls	Client Info		95652	87382	61021
Oil Age	mls	Client Info		34071	52162	0
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				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	15	17	17
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m	>2	0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	8	11	16
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	2	2	<1
Tin	ppm	ASTM D5185m	>15	0	<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

CONTAMINATION

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

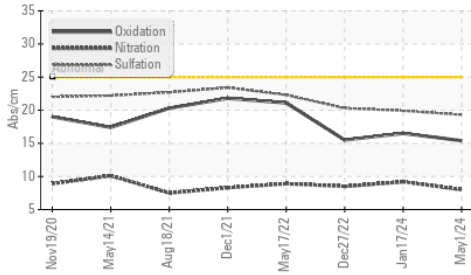
Silicon	ppm	ASTM D5185m	>25	5	5	8
Potassium	ppm	ASTM D5185m	>20	11	23	30
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.3	0.4	0.6
Nitration	Abs/cm	*ASTM D7624	>20	8.0	9.2	8.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.3	19.9	20.3
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

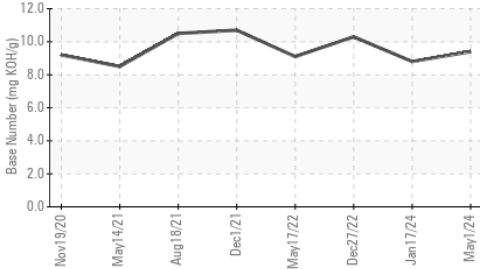
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>118	2	0	2
Boron	ppm	ASTM D5185m		4	2	5
Barium	ppm	ASTM D5185m		0	13	0
Molybdenum	ppm	ASTM D5185m		63	65	61
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		934	943	912
Calcium	ppm	ASTM D5185m		1111	1116	1104
Phosphorus	ppm	ASTM D5185m		1075	1006	1024
Zinc	ppm	ASTM D5185m		1204	1229	1212
Sulfur	ppm	ASTM D5185m		3525	3661	3589
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.4	16.5	15.5
Base Number (BN)	mg KOH/g	ASTM D2896		9.4	8.8	10.3
Visc @ 100°C	cSt	ASTM D445		12.6	12.6	12.4

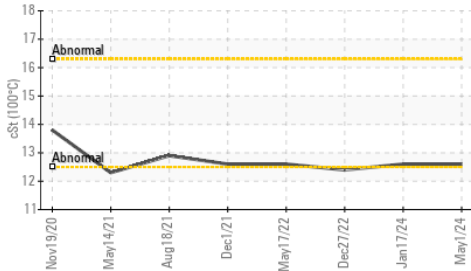
FT-IR (Direct Trend)



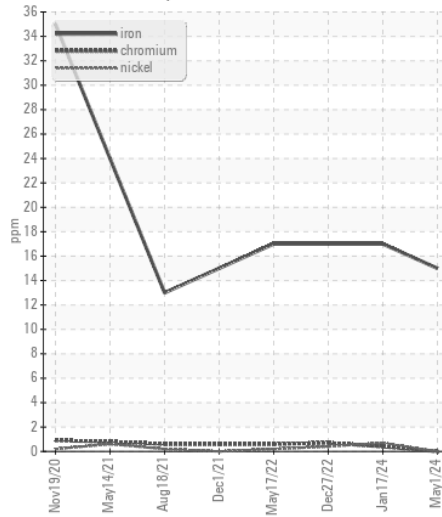
Base Number



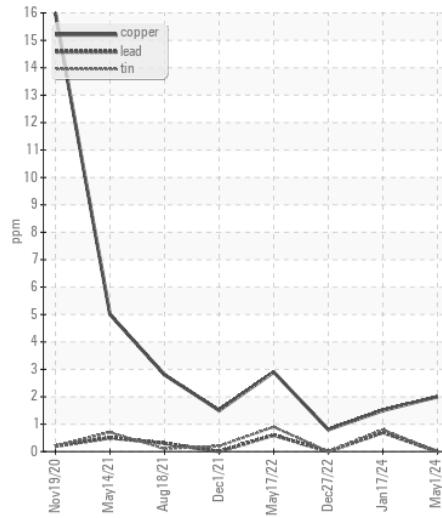
Viscosity @ 100°C



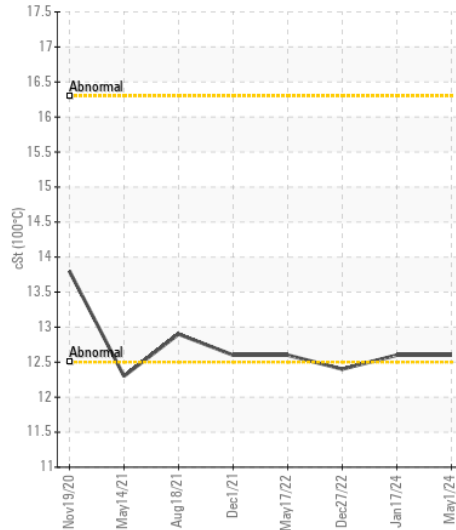
Ferrous Alloys



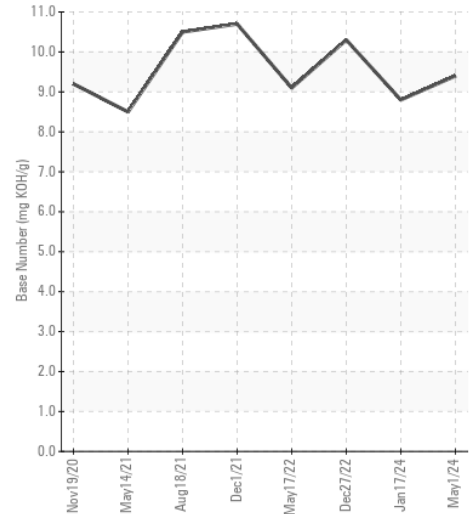
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : IL0033724

Lab Number : 06235390

Unique Number : 11124224

Test Package : FLEET

Received : 15 Jul 2024

Tested : 15 Jul 2024

Diagnosed : 15 Jul 2024 - Wes Davis

RUSH TRUCK LEASING - CHARLOTTE IDEALEASE

1333 AMERON DR

CHARLOTTE, NC

US 28206

Contact: JERRY DIXON

dixonj@rushenterprises.com

T: (704)333-4507

F: (704)333-4508

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)