



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
625030/516889

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 40 (20 QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL0030575	IL0026544	IL0026603
Sample Date		Client Info		17 Jan 2024	12 Apr 2023	19 Jan 2023
Machine Age	mls	Client Info		110885	92048	83966
Oil Age	mls	Client Info		110885	92048	83966
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	20	13	18
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	9	6	11
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>330	2	1	2
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

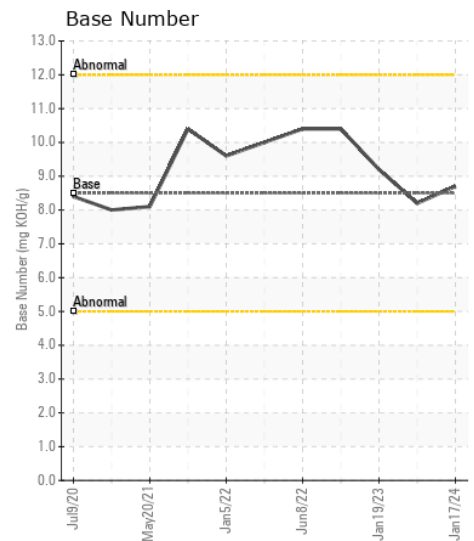
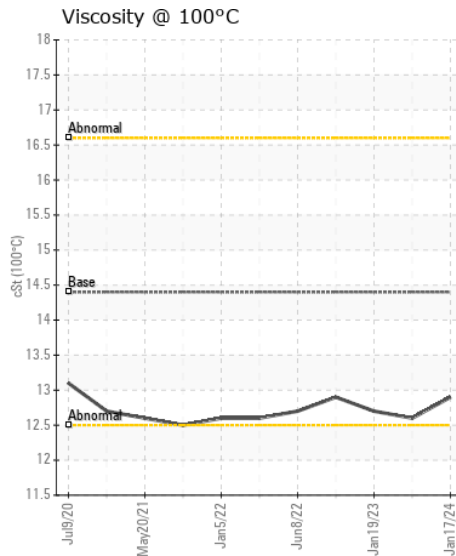
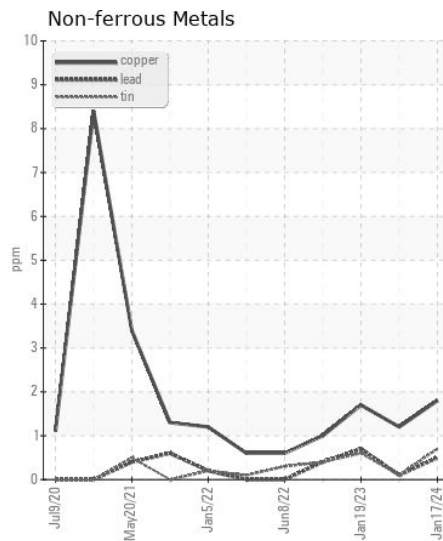
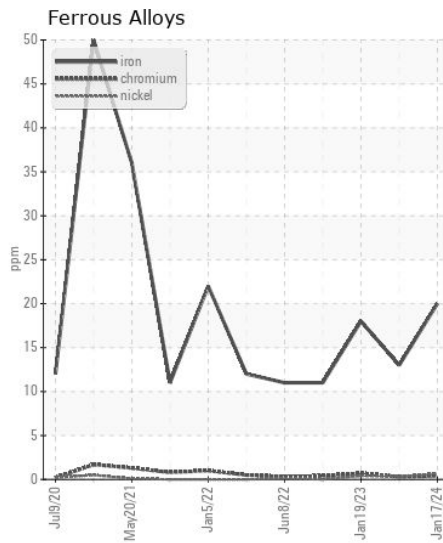
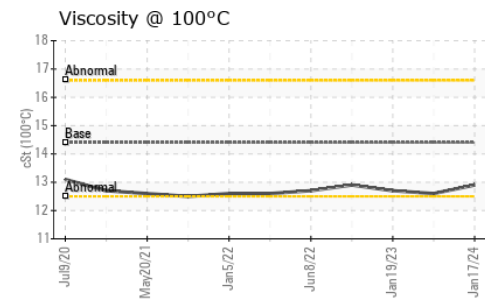
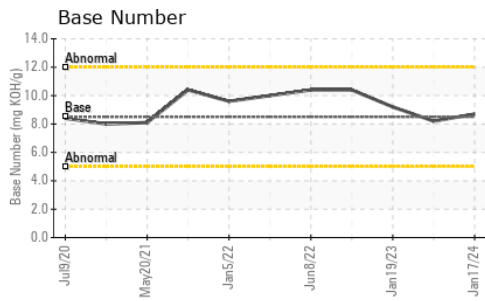
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	4	5
Potassium	ppm	ASTM D5185m	>20	14	8	13
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	0.5	0.4	0.4
Nitration	Abs/cm	*ASTM D7624	>20	9.4	8.0	9.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.1	17.6	19.4
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	>216	0	0	2
Boron	ppm	ASTM D5185m	250	2	6	3
Barium	ppm	ASTM D5185m	10	13	0	0
Molybdenum	ppm	ASTM D5185m	100	67	63	62
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	960	885	998
Calcium	ppm	ASTM D5185m	3000	1122	1145	1226
Phosphorus	ppm	ASTM D5185m	1150	1033	1016	1052
Zinc	ppm	ASTM D5185m	1350	1247	1225	1384
Sulfur	ppm	ASTM D5185m	4250	3787	3367	4091
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.6	14.6	15.8
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.7	8.2	9.2
Visc @ 100°C	cSt	ASTM D445	14.4	12.9	12.6	12.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL0030575
Lab Number : 06086557
Unique Number : 10874002
Test Package : FLEET

Received : 12 Feb 2024
Tested : 13 Feb 2024
Diagnosed : 13 Feb 2024 - Wes Davis

RUSH TRUCK LEASING - CHARLOTTE IDEALEASE
 1333 AMERON DR
 CHARLOTTE, NC
 US 28206

Contact: JERRY DIXON
 dixonj@rushenterprises.com

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)

T: (704)333-4507
 F: (704)333-4508