



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
INTERNATIONAL 442324
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		IL0036540	IL0034949	IL0031141
Sample Date		Client Info		03 Apr 2024	26 Jan 2024	05 Jul 2023
Machine Age	mls	Client Info		133637	112979	59154
Oil Age	mls	Client Info		20658	17179	19354
Filter Age	mls	Client Info		20658	17179	19354
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	26	24	30
Chromium	ppm	ASTM D5185m	>20	2	1	2
Nickel	ppm	ASTM D5185m	>4	<1	0	<1
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	6	4
Lead	ppm	ASTM D5185m	>40	<1	0	<1
Copper	ppm	ASTM D5185m	>330	1	1	2
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

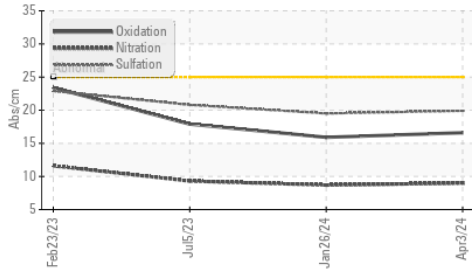
Silicon	ppm	ASTM D5185m	>25	4	4	7
Potassium	ppm	ASTM D5185m	>20	8	10	7
Fuel		WC Method	>2.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	9.0	8.7	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.9	19.5	20.8
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

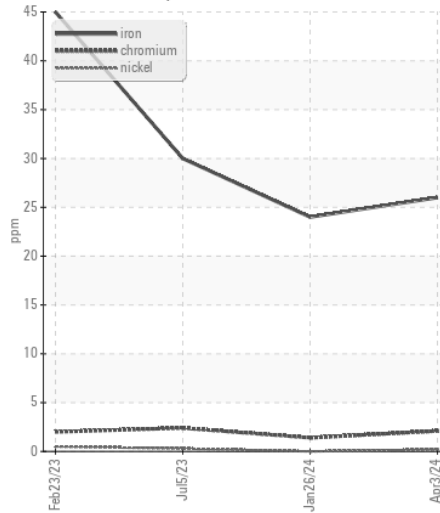
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	0	<1	2
Boron	ppm	ASTM D5185m	250	<1	3	8
Barium	ppm	ASTM D5185m	10	2	0	<1
Molybdenum	ppm	ASTM D5185m	100	67	66	73
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m	450	942	1020	1063
Calcium	ppm	ASTM D5185m	3000	1100	1155	1219
Phosphorus	ppm	ASTM D5185m	1150	1054	1071	1121
Zinc	ppm	ASTM D5185m	1350	1216	1327	1387
Sulfur	ppm	ASTM D5185m	4250	3285	4005	3824
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.6	15.9	17.9
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.7	8.9	8.1
Visc @ 100°C	cSt	ASTM D445	14.4	12.8	12.8	12.8

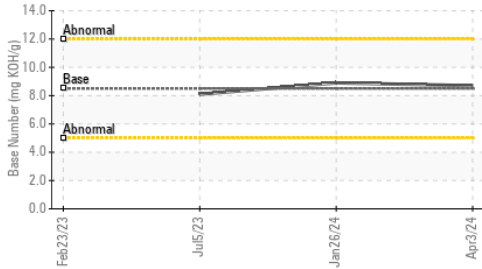
FT-IR (Direct Trend)



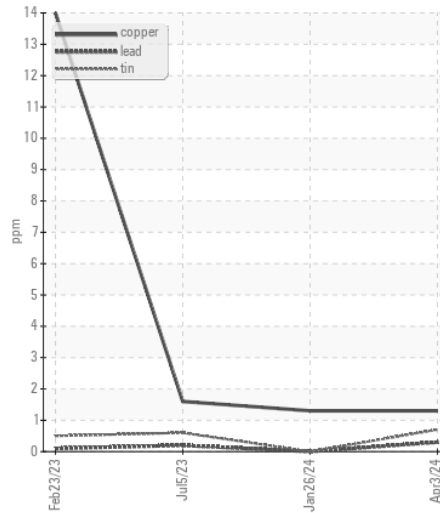
Ferrous Alloys



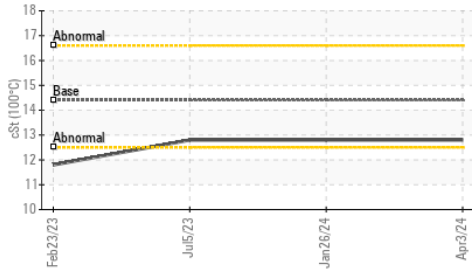
Base Number



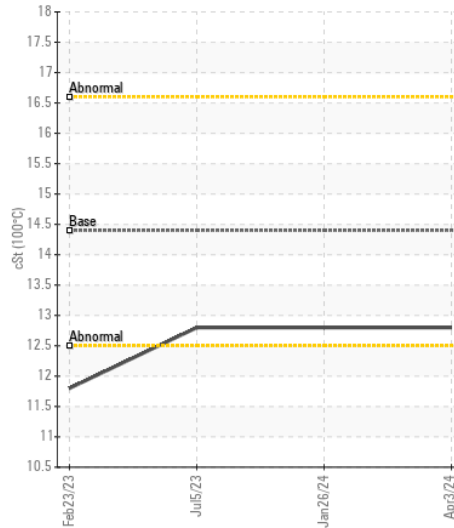
Non-ferrous Metals



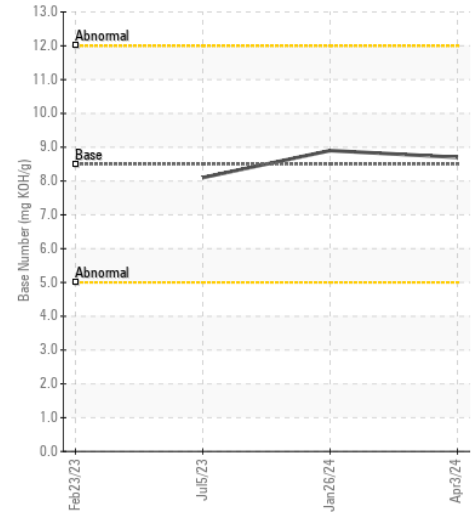
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL0036540
Lab Number : 06176493
Unique Number : 11022546
Test Package : FLEET

Received : 10 May 2024
Tested : 13 May 2024
Diagnosed : 13 May 2024 - Wes Davis

RUSH TRUCK LEASING - CLEVELAND IDEALEASE
 5 ACORN DR
 OAKWOOD VILLAGE, OH
 US 44146-5550
 Contact: LISA ZWIESLER

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: (440)439-1475
 F: (440)439-5657