



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
181801
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. 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		IL06241310	IL06116866	IL05902990
Sample Date		Client Info		25 Jun 2024	16 Feb 2024	23 Jun 2023
Machine Age	hrs	Client Info		0	5630	128608
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	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	>100	35	54	68
Chromium	ppm	ASTM D5185m	>20	<1	<1	2
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	6	11	18
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	<1	1	2
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
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.

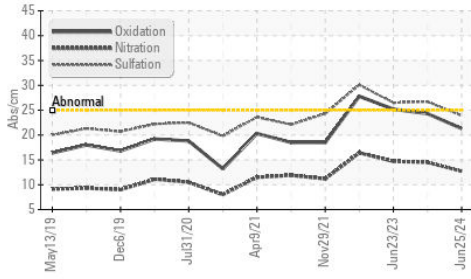
Silicon	ppm	ASTM D5185m	>25	5	7	7
Potassium	ppm	ASTM D5185m	>20	4	5	10
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.9	1.3	1.1
Nitration	Abs/cm	*ASTM D7624	>20	12.7	14.5	14.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.9	26.7	26.5
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

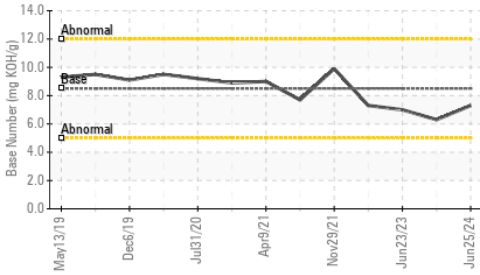
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	2	1	3
Boron	ppm	ASTM D5185m	250	5	<1	10
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	65	70	61
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	988	975	932
Calcium	ppm	ASTM D5185m	3000	1216	1196	1463
Phosphorus	ppm	ASTM D5185m	1150	1052	1094	1102
Zinc	ppm	ASTM D5185m	1350	1256	1322	1372
Sulfur	ppm	ASTM D5185m	4250	3512	3444	4106
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.3	24.3	25.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.3	6.3	7.0
Visc @ 100°C	cSt	ASTM D445	14.4	13.6	13.7	13.1

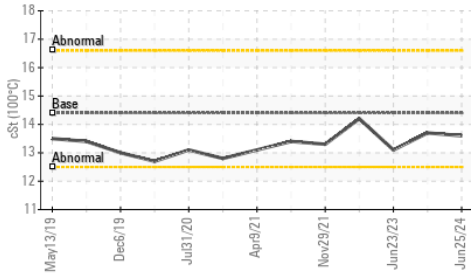
FT-IR (Direct Trend)



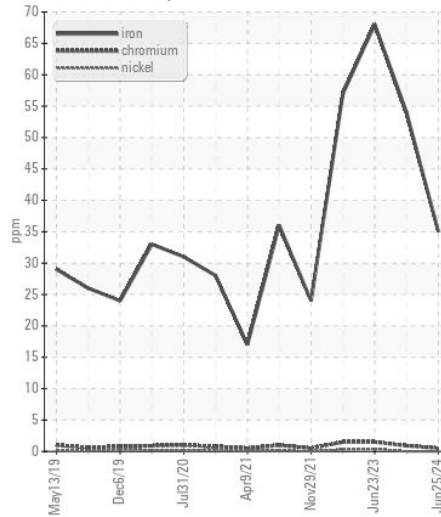
Base Number



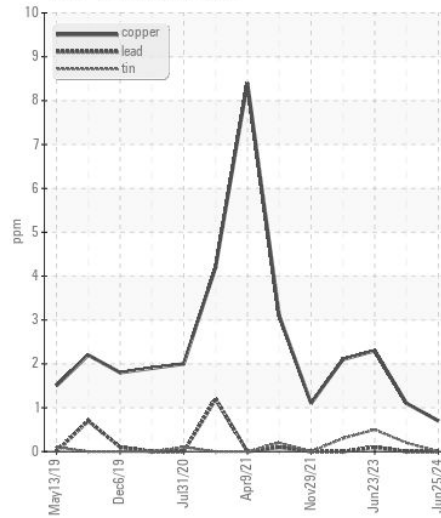
Viscosity @ 100°C



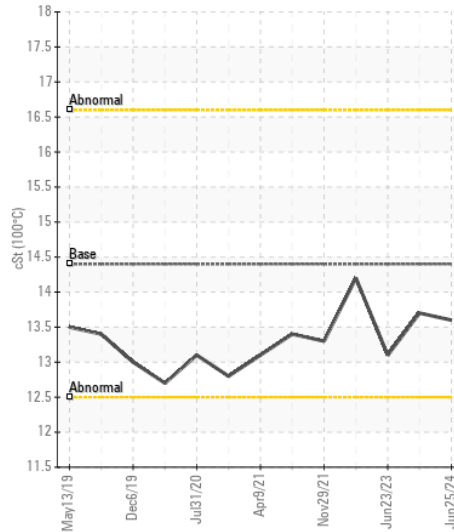
Ferrous Alloys



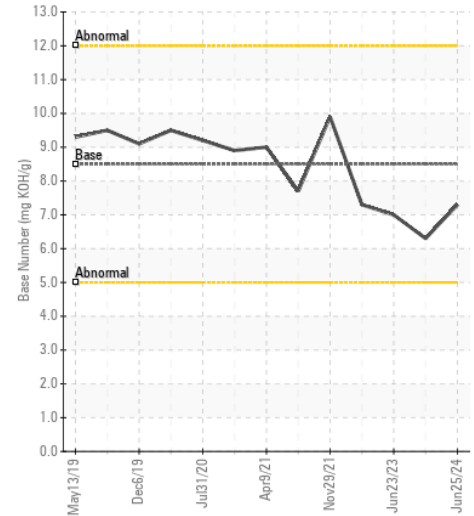
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

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

Sample No. : IL06241310

Lab Number : 06241310

Unique Number : 11130144

Test Package : FLEET

Received : 19 Jul 2024

Tested : 20 Jul 2024

Diagnosed : 20 Jul 2024 - Wes Davis

RUSH TRUCK LEASING - CINCINNATI IDEALLEASE

11777 HIGHWAY DRIVE

CINCINNATI, OH

US 45241

Contact: ROBERT BAIER

baierr@rushenterprises.com

T: (513)657-7901

F: (513)733-0537

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)