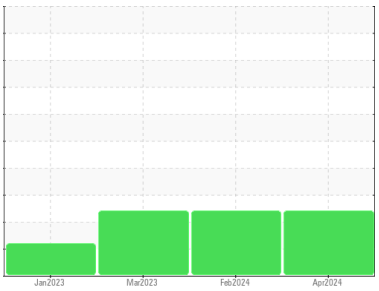
PROBLEM SUMMARY

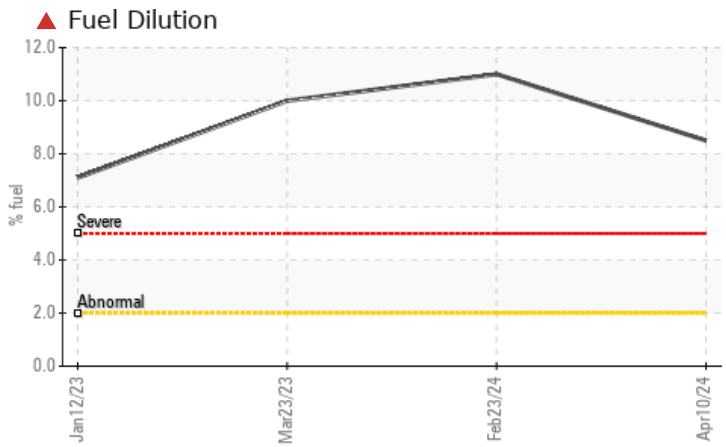
Sample Rating Trend

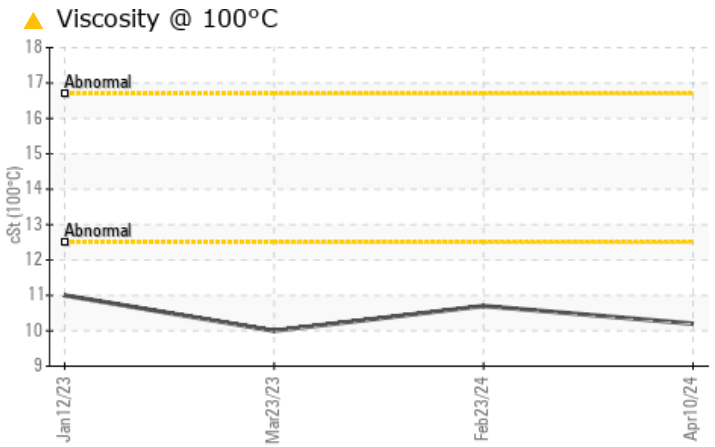


FUEL

Machine Id
INTERNATIONAL FFB22
Component
Diesel Engine
Fluid
{not provided} (18 QTS)

COMPONENT CONDITION SUMMARY





RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

PROBLEMATIC TEST RESULTS

Sample Status				**SEVERE**	SEVERE	SEVERE
Fuel	%	ASTM D3524	>2.0	▲ **8.5**	▲ 11.0	▲ 10.0
Visc @ 100°C	cSt	ASTM D445		▲ **10.2**	▲ 10.7	▲ 10.0

Customer Id: IDECLE
Sample No.: IL0036558
Lab Number: 06158292
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Wes Davis +1 905-569-8600 x223
wesd@wearcheck.ca

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

FUEL

23 Feb 2024 Diag: Wes Davis

We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.Metal levels are typical for a new component breaking in. There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

view report

FUEL

23 Mar 2023 Diag: Doug Bogart

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.All component wear rates are normal. There is a high amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report

FUEL

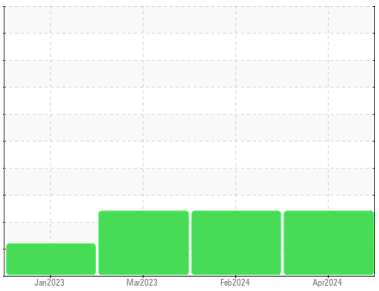
12 Jan 2023 Diag: Jonathan Hester

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



FUEL

Machine Id
INTERNATIONAL FFB22
Component
Diesel Engine
Fluid
{not provided} (18 QTS)

DIAGNOSIS

▲ Recommendation
We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear
Metal levels are typical for a new component breaking in.

▲ Contamination
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

▲ Fluid Condition
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**IL0036558**	IL0034938	IL0031106
Sample Date		Client Info		**10 Apr 2024**	23 Feb 2024	23 Mar 2023
Machine Age	mls	Client Info		**53587**	53587	25920
Oil Age	mls	Client Info		**3165**	8680	5731
Oil Changed		Client Info		**Not Changd**	Changed	Changed
Sample Status				**SEVERE**	SEVERE	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	**19**	40	36
Chromium	ppm	ASTM D5185m	>20	**1**	2	2
Nickel	ppm	ASTM D5185m	>4	**0**	0	<1
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**2**	2	3
Lead	ppm	ASTM D5185m	>40	**0**	0	<1
Copper	ppm	ASTM D5185m	>330	**2**	<1	2
Tin	ppm	ASTM D5185m	>15	**0**	0	0
Vanadium	ppm	ASTM D5185m		**0**	<1	<1
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**54**	24	27
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**3**	20	75
Manganese	ppm	ASTM D5185m		**<1**	<1	1
Magnesium	ppm	ASTM D5185m		**681**	614	225
Calcium	ppm	ASTM D5185m		**1223**	1301	1736
Phosphorus	ppm	ASTM D5185m		**953**	945	930
Zinc	ppm	ASTM D5185m		**1113**	1115	1108
Sulfur	ppm	ASTM D5185m		**3763**	3764	3204

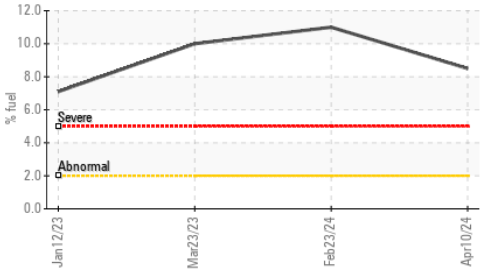
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**6**	6	6
Sodium	ppm	ASTM D5185m		**1**	3	3
Potassium	ppm	ASTM D5185m	>20	**2**	1	1
Fuel	%	ASTM D3524	>2.0	**▲ 8.5**	▲ 11.0	▲ 10.0

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.4**	0.6	0.4
Nitration	Abs/cm	*ASTM D7624	>20	**9.9**	12.3	12.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	**19.9**	24.4	19.6

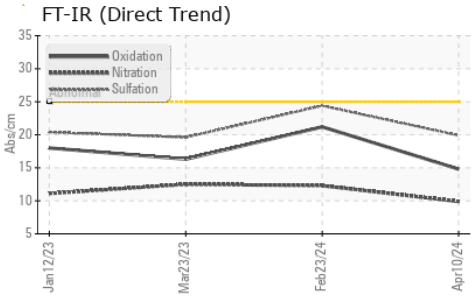
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**14.8**	21.2	16.3
Base Number (BN)	mg KOH/g	ASTM D2896		**8.3**	6.8	7.2

OIL ANALYSIS REPORT

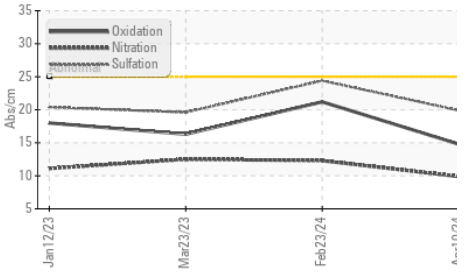
▲ Fuel Dilution



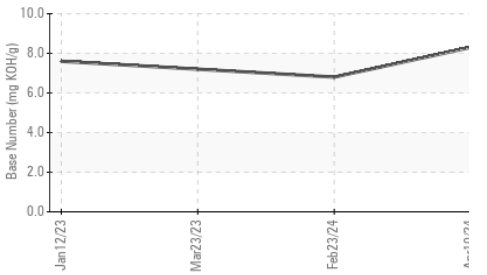
FT-IR (Direct Trend)



FT-IR (Direct Trend)



Base Number

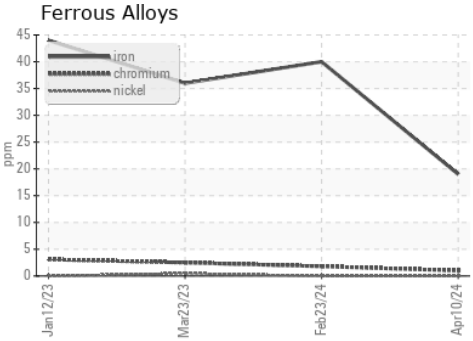


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	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
Free Water	scalar	*Visual		**NEG**	NEG	NEG

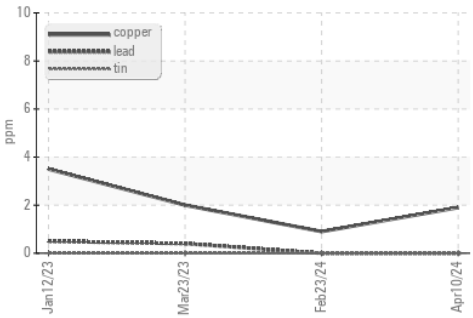
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445		▲ **10.2**	▲ 10.7	▲ 10.0

GRAPHS

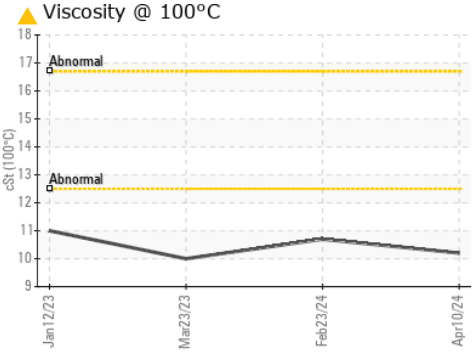
Ferrous Alloys



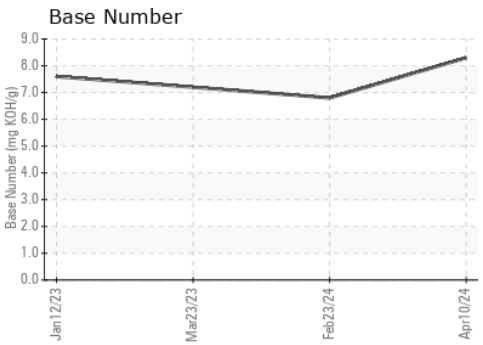
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL0036558
Lab Number : 06158292
Unique Number : 10993715
Test Package : FLEET (Additional Tests: PercentFuel)

Received : 23 Apr 2024
Tested : 25 Apr 2024
Diagnosed : 25 Apr 2024 - Wes Davis

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)

RUSH TRUCK LEASING - CLEVELAND IDEALEASE
5 ACORN DR
OAKWOOD VILLAGE, OH
US 44146-5550
Contact: JOHN FOSTER
FosterJ4@RushEnterprises.com
T: (440)359-7000
F: (440)439-5657

Report Id: IDECLE [WUSCAR] 06158292 (Generated: 04/25/2024 11:19:30) Rev: 1

Submitted By: TECHNICIAN ACCOUNT