



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>SEVERE</b>
FLUID CONDITION	<b>ABNORMAL</b>

Machine Id  
**3603**  
 Component  
**Diesel Engine**  
 Fluid  
**{not provided} (12 QTS)**

### 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 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		<b>IL0033859</b>	IL0030624	IL0030541
Sample Date		Client Info		<b>28 May 2024</b>	22 Feb 2024	29 Nov 2023
Machine Age	mls	Client Info		<b>80159</b>	65757	52774
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>SEVERE</b>	SEVERE	SEVERE

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>61</b>	81	136
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	2	4
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>3</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	2	4
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>2</b>	0	4
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

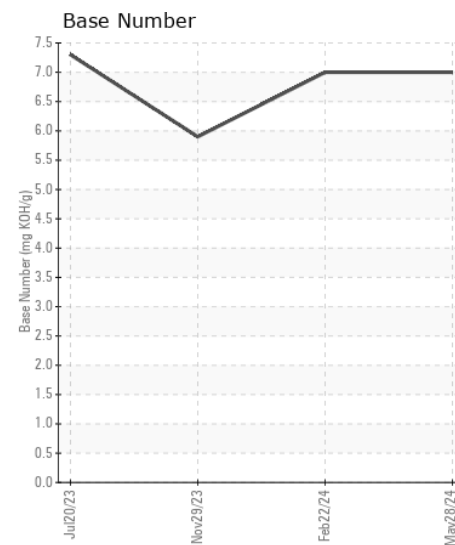
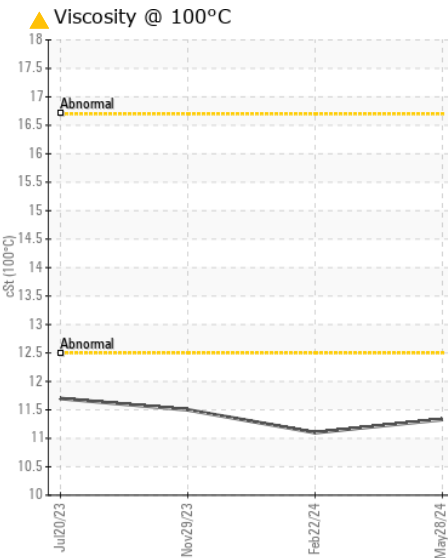
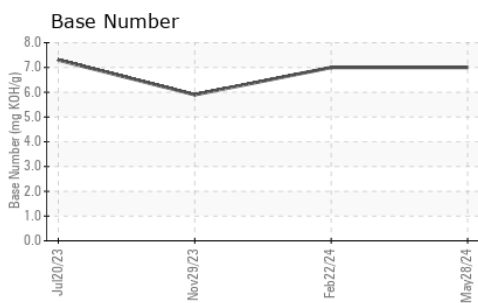
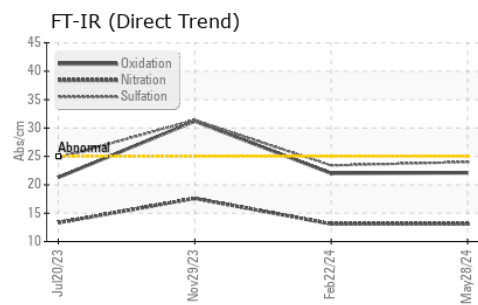
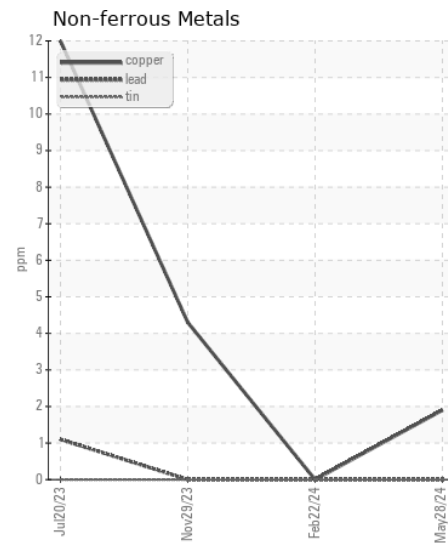
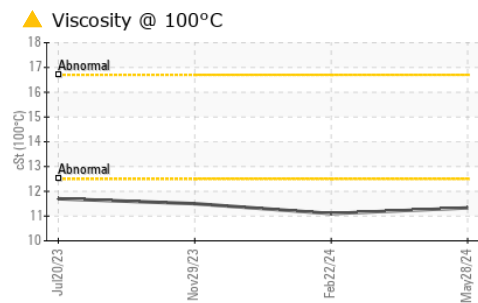
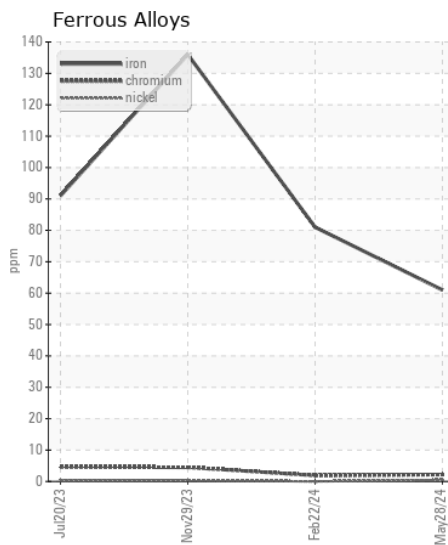
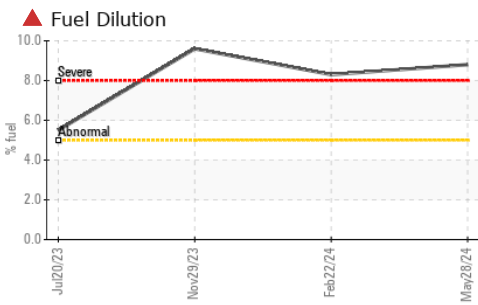
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>11</b>	11	15
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	0
Fuel	%	ASTM D3524	>5	<b>▲ 8.8</b>	▲ 8.3	▲ 9.6
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>1</b>	1	1.8
Nitration	Abs/cm	*ASTM D7624	>20	<b>13.1</b>	13.1	17.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.0</b>	23.4	31.4
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

### 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.

Sodium	ppm	ASTM D5185m		<b>3</b>	<1	8
Boron	ppm	ASTM D5185m		<b>3</b>	3	0
Barium	ppm	ASTM D5185m		<b>0</b>	2	0
Molybdenum	ppm	ASTM D5185m		<b>61</b>	61	47
Manganese	ppm	ASTM D5185m		<b>2</b>	<1	3
Magnesium	ppm	ASTM D5185m		<b>935</b>	926	770
Calcium	ppm	ASTM D5185m		<b>1090</b>	1022	920
Phosphorus	ppm	ASTM D5185m		<b>1077</b>	1028	830
Zinc	ppm	ASTM D5185m		<b>1237</b>	1192	991
Sulfur	ppm	ASTM D5185m		<b>3420</b>	2608	2046
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>22.1</b>	22.0	31.2
Base Number (BN)	mg KOH/g	ASTM D2896		<b>7.0</b>	7.0	5.9
Visc @ 100°C	cSt	ASTM D445		<b>▲ 11.33</b>	▲ 11.1	▲ 11.5



Certificate L2367

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

Sample No. : IL0033859

Lab Number : 06212823

Unique Number : 11085687

Test Package : FLEET ( Additional Tests: PercentFuel )

Received : 17 Jun 2024

Tested : 24 Jun 2024

Diagnosed : 24 Jun 2024 - Wes Davis

RUSH TRUCK LEASING - CHARLOTTE IDEALEASE

1333 AMERON DR

CHARLOTTE, NC

US 28206

Contact: JERRY DIXON

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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)