



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id  
**7891L**  
 Component  
**Diesel Engine**  
 Fluid  
**{not provided} (--- QTS)**

### RECOMMENDATION

No corrective action is recommended at this time. 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		<b>IL06175093</b>	---	---
Sample Date		Client Info		<b>23 Mar 2024</b>	---	---
Machine Age	mls	Client Info		<b>41644</b>	---	---
Oil Age	mls	Client Info		<b>41644</b>	---	---
Filter Age	mls	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>N/A</b>	---	---
Filter Changed		Client Info		<b>N/A</b>	---	---
Sample Status				<b>ABNORMAL</b>	---	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>72</b>	---	---
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	---	---
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185m		<b>0</b>	---	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>20	<b>27</b>	---	---
Lead	ppm	ASTM D5185m	>40	<b>12</b>	---	---
Copper	ppm	ASTM D5185m	>330	<b>20</b>	---	---
Tin	ppm	ASTM D5185m	>15	<b>5</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

### 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. Elemental level of silicon (Si) above normal indicating ingress of seal material.

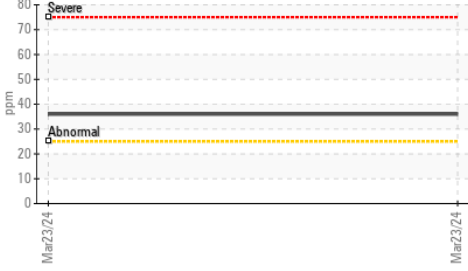
Silicon	ppm	ASTM D5185m	>25	<b>▲ 36</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>70</b>	---	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.5</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.2</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	---	---

### FLUID CONDITION

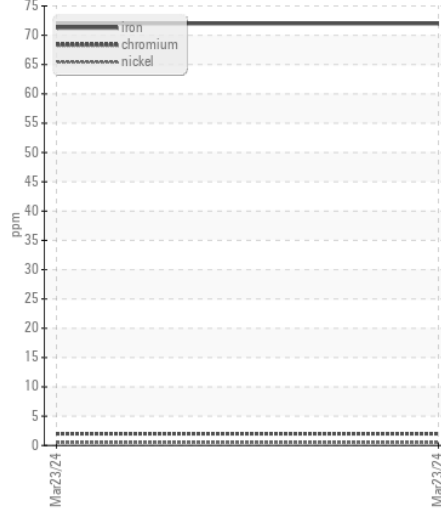
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>5</b>	---	---
Boron	ppm	ASTM D5185m		<b>30</b>	---	---
Barium	ppm	ASTM D5185m		<b>5</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>62</b>	---	---
Manganese	ppm	ASTM D5185m		<b>5</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>526</b>	---	---
Calcium	ppm	ASTM D5185m		<b>1709</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>977</b>	---	---
Zinc	ppm	ASTM D5185m		<b>1218</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>3042</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>22.8</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>5.0</b>	---	---
Visc @ 100°C	cSt	ASTM D445		<b>18.2</b>	---	---

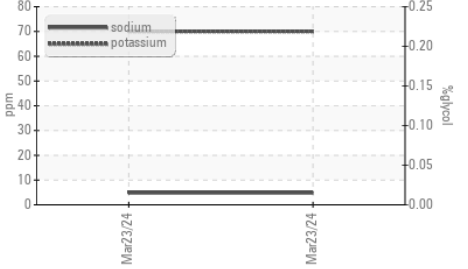
▲ Silicon (ppm)



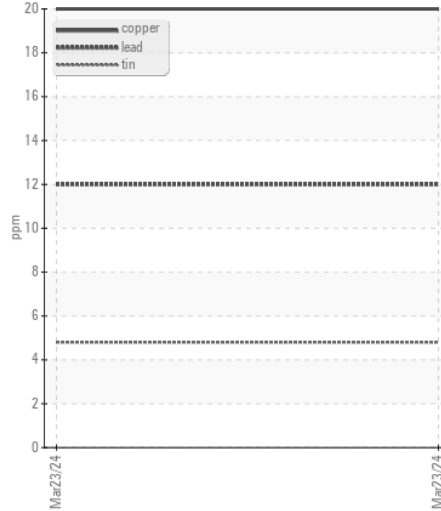
Ferrous Alloys



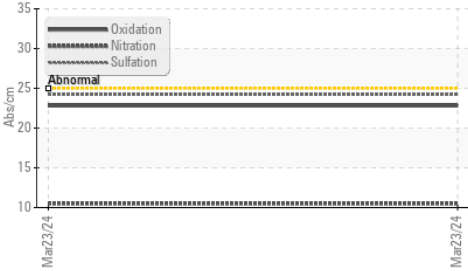
Glycol Contamination



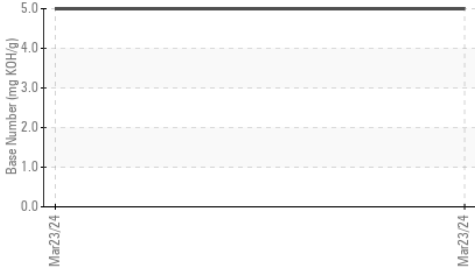
Non-ferrous Metals



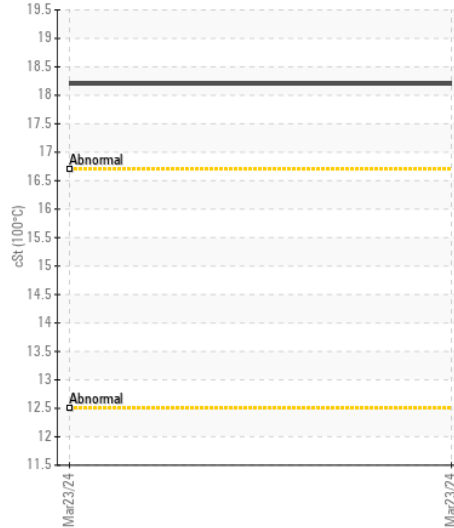
FT-IR (Direct Trend)



Base Number



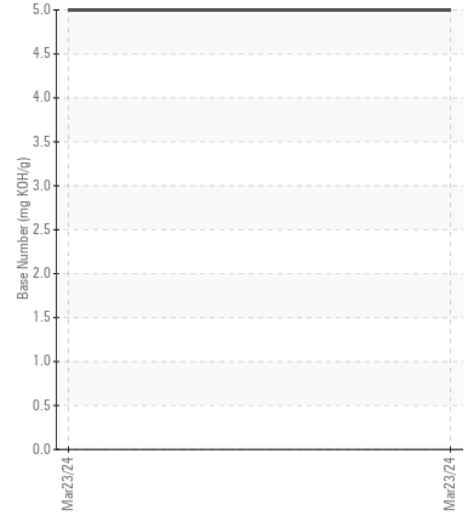
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : IL06175093  
**Lab Number** : 06175093  
**Unique Number** : 11021146  
**Test Package** : FLEET

**Received** : 10 May 2024  
**Tested** : 10 May 2024  
**Diagnosed** : 13 May 2024 - Don Baldrige

**RUSH TRUCK CENTER - CHICAGO IDEALEASE**  
 4655 SOUTH CENTRAL AVENUE  
 CHICAGO, IL  
 US 60638

Contact: MIKE LINLEY  
 linleym@rushtruckcenters.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)

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