



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

Machine Id  
**8811157**  
 Component  
**Diesel Engine**  
 Fluid  
**{not provided} (--- GAL)**

### RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We recommend that you drain the oil from the component if this has not already been done. 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>IL06073776</b>	---	---
Sample Date		Client Info		<b>29 Jan 2024</b>	---	---
Machine Age	mls	Client Info		<b>0</b>	---	---
Oil Age	mls	Client Info		<b>0</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

The lead level is abnormal. Cylinder, crank, or cam shaft wear is indicated.

Iron	ppm	ASTM D5185m	>100	<b>▲ 191</b>	---	---
Chromium	ppm	ASTM D5185m	>20	<b>6</b>	---	---
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	---	---
Titanium	ppm	ASTM D5185m		<b>1</b>	---	---
Silver	ppm	ASTM D5185m	>3	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>20	<b>▲ 16</b>	---	---
Lead	ppm	ASTM D5185m	>40	<b>▲ 53</b>	---	---
Copper	ppm	ASTM D5185m	>330	<b>6</b>	---	---
Tin	ppm	ASTM D5185m	>15	<b>5</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

### CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

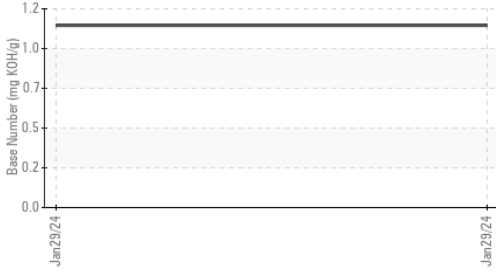
Silicon	ppm	ASTM D5185m	>25	<b>▲ 31</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>14</b>	---	---
Fuel		WC Method	>5	<b>&lt;1.0</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844	>3	<b>1.3</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>21.1</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>43.1</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 level is low.

Sodium	ppm	ASTM D5185m		<b>0</b>	---	---
Boron	ppm	ASTM D5185m		<b>19</b>	---	---
Barium	ppm	ASTM D5185m		<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>85</b>	---	---
Manganese	ppm	ASTM D5185m		<b>2</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>110</b>	---	---
Calcium	ppm	ASTM D5185m		<b>2132</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>880</b>	---	---
Zinc	ppm	ASTM D5185m		<b>1181</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>3131</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>56.5</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>▲ 1.1</b>	---	---
Visc @ 100°C	cSt	ASTM D445		<b>12.7</b>	---	---

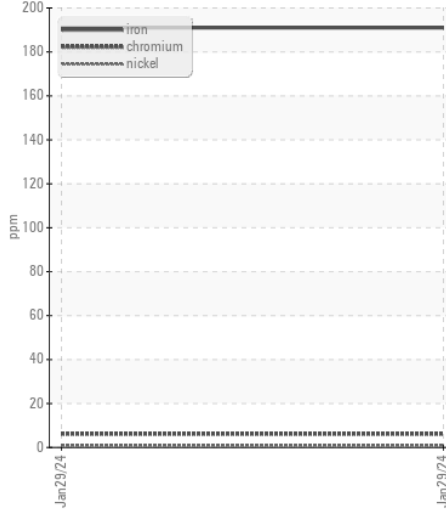
▲ Base Number



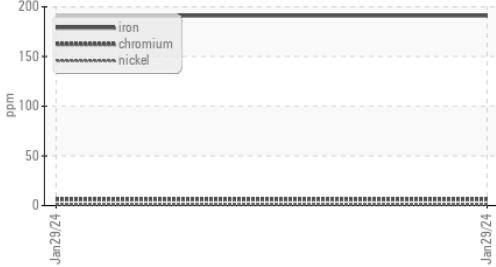
▲ Non-ferrous Metals



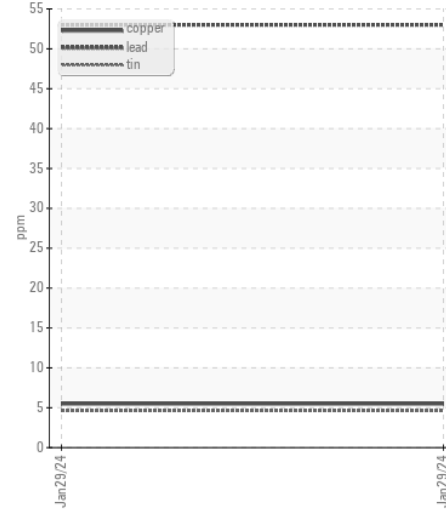
▲ Ferrous Alloys



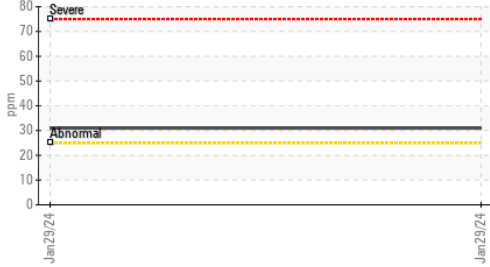
▲ Ferrous Alloys



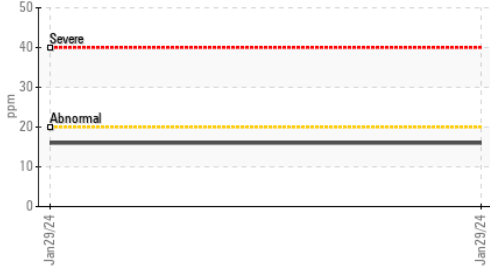
▲ Non-ferrous Metals



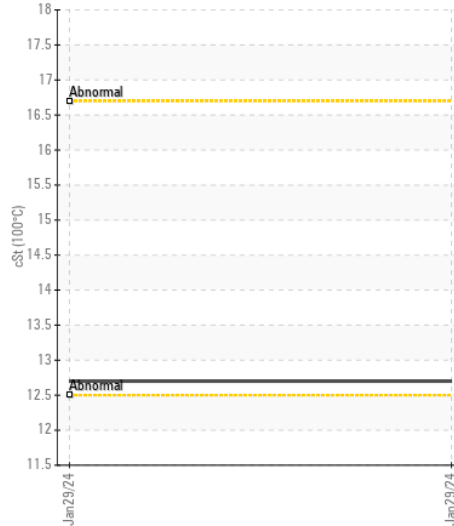
▲ Silicon (ppm)



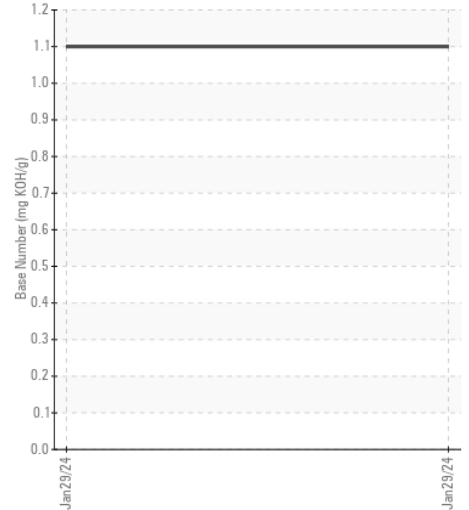
▲ Aluminum (ppm)



Viscosity @ 100°C



▲ Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : IL06073776 **Received** : 30 Jan 2024  
**Lab Number** : 06073776 **Diagnosed** : 02 Feb 2024  
**Unique Number** : 10855867 **Diagnostician** : Jonathan Hester  
**Test Package** : FLEET

**IDEALASE-NORCROSS**  
 4571 NORTH BUFORD HWY  
 NORCROSS, GA  
 US 30071-2808  
 Contact: RICK MARKS

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:  
 F: (770)300-0614