



Machine Id  
**914041**  
Component  
**Diesel Engine**  
Fluid  
**{not provided} (--- GAL)**

**RECOMMENDATION**

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0103888</b>	---	---
Sample Date		Client Info		<b>15 Jan 2024</b>	---	---
Machine Age	hrs	Client Info		<b>0</b>	---	---
Oil Age	hrs	Client Info		<b>0</b>	---	---
Filter Age	hrs	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	>120	<b>62</b>	---	---
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	---	---
Nickel	ppm	ASTM D5185m	>5	<b>4</b>	---	---
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	---	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	---	---
Lead	ppm	ASTM D5185m	>40	<b>2</b>	---	---
Copper	ppm	ASTM D5185m	>330	<b>163</b>	---	---
Tin	ppm	ASTM D5185m	>15	<b>3</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**

Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material.

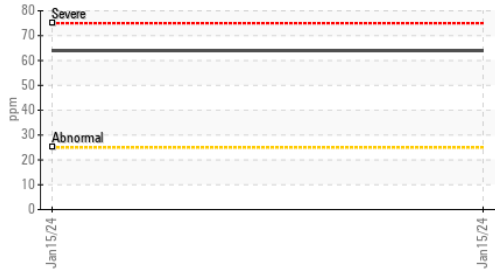
Silicon	ppm	ASTM D5185m	>25	<b>▲ 64</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>5</b>	---	---
Fuel	%	ASTM D3524	>3.0	<b>1.1</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844	>4	<b>0.8</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.2</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.4</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**

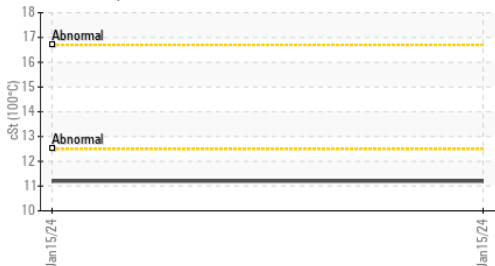
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		<b>4</b>	---	---
Boron	ppm	ASTM D5185m		<b>34</b>	---	---
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Molybdenum	ppm	ASTM D5185m		<b>107</b>	---	---
Manganese	ppm	ASTM D5185m		<b>4</b>	---	---
Magnesium	ppm	ASTM D5185m		<b>815</b>	---	---
Calcium	ppm	ASTM D5185m		<b>1340</b>	---	---
Phosphorus	ppm	ASTM D5185m		<b>815</b>	---	---
Zinc	ppm	ASTM D5185m		<b>970</b>	---	---
Sulfur	ppm	ASTM D5185m		<b>2121</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>24.8</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		<b>5.1</b>	---	---
Visc @ 100°C	cSt	ASTM D445		<b>▲ 11.2</b>	---	---

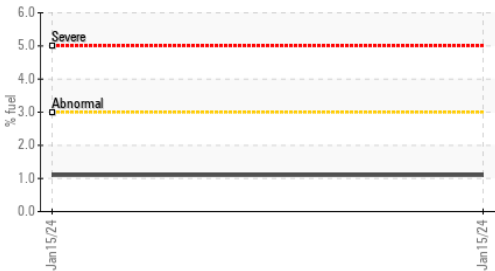
▲ Silicon (ppm)



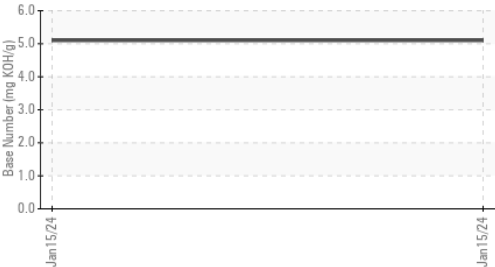
▲ Viscosity @ 100°C



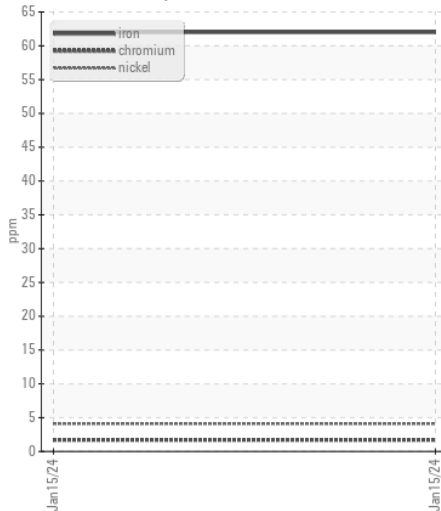
Fuel Dilution



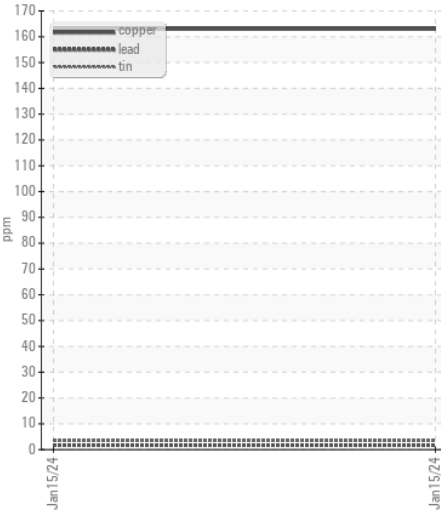
Base Number



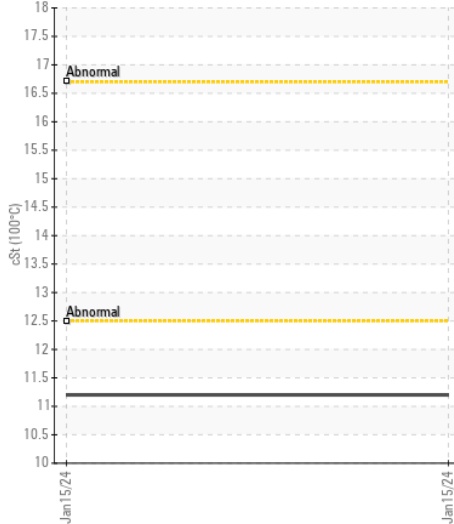
Ferrous Alloys



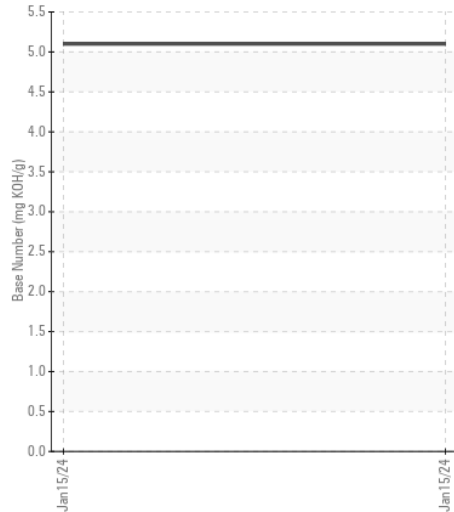
Non-ferrous Metals



▲ Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0103888 **Received** : 19 Jan 2024  
**Lab Number** : 06065356 **Diagnosed** : 23 Jan 2024  
**Unique Number** : 10836738 **Diagnostician** : Sean Felton  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 045 - Tidewater**  
 3821 Cook Blvd.  
 Chesapeake, VA  
 US 23323  
 Contact: ELVIN RODRIGUEZ  
 elvinrodriguez@gflenv.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)

T:  
F: