



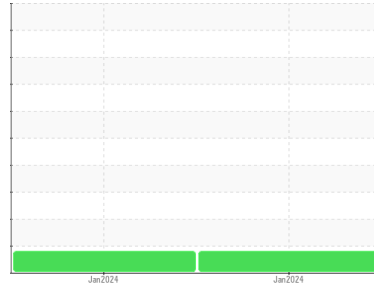
# OIL ANALYSIS REPORT

Sample Rating Trend

**WEAR**



Area  
**2730**  
 Machine Id  
**813031**  
 Component  
**Diesel Engine**  
 Fluid  
**{not provided} (--- GAL)**



## DIAGNOSIS

### ▲ 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.

### ▲ Wear

The nickel level is abnormal. All other component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

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

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>GFL0098054</b>	GFL0023773	---
Sample Date	Client Info		<b>22 Jan 2024</b>	18 Jan 2024	---
Machine Age	hrs	Client Info	<b>1119</b>	1119	---
Oil Age	hrs	Client Info	<b>1119</b>	1119	---
Oil Changed	Client Info		<b>N/A</b>	N/A	---
Sample Status			<b>ABNORMAL</b>	ABNORMAL	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>3.0	<b>&lt;1.0</b>	<1.0	---
Water	WC Method	>0.2	<b>NEG</b>	NEG	---
Glycol	WC Method		<b>NEG</b>	NEG	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	<b>55</b>	61	---
Chromium	ppm	ASTM D5185m >20	<b>2</b>	2	---
Nickel	ppm	ASTM D5185m >5	<b>▲ 21</b>	▲ 28	---
Titanium	ppm	ASTM D5185m >2	<b>&lt;1</b>	0	---
Silver	ppm	ASTM D5185m >2	<b>0</b>	<1	---
Aluminum	ppm	ASTM D5185m >20	<b>3</b>	3	---
Lead	ppm	ASTM D5185m >40	<b>1</b>	<1	---
Copper	ppm	ASTM D5185m >330	<b>42</b>	42	---
Tin	ppm	ASTM D5185m >15	<b>4</b>	4	---
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>9</b>	12	---
Barium	ppm	ASTM D5185m	<b>0</b>	0	---
Molybdenum	ppm	ASTM D5185m	<b>67</b>	75	---
Manganese	ppm	ASTM D5185m	<b>3</b>	3	---
Magnesium	ppm	ASTM D5185m	<b>826</b>	998	---
Calcium	ppm	ASTM D5185m	<b>1096</b>	1200	---
Phosphorus	ppm	ASTM D5185m	<b>832</b>	968	---
Zinc	ppm	ASTM D5185m	<b>1022</b>	1262	---
Sulfur	ppm	ASTM D5185m	<b>1642</b>	2395	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>17</b>	17	---
Sodium	ppm	ASTM D5185m	<b>4</b>	7	---
Potassium	ppm	ASTM D5185m >20	<b>5</b>	5	---

## INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	<b>0.8</b>	0.7	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>11.4</b>	11.1	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>23.0</b>	22.6	---

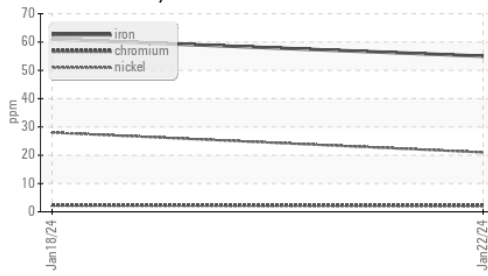
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>21.5</b>	20.9	---
Base Number (BN)	mg KOH/g	ASTM D2896	<b>4.3</b>	4.8	---

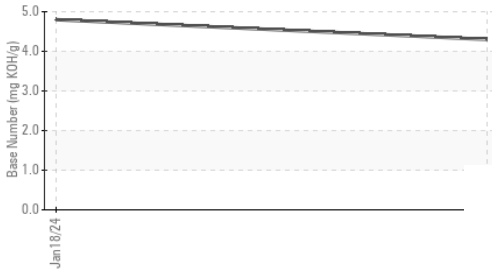


# OIL ANALYSIS REPORT

### ▲ Ferrous Alloys



### Base Number



### Viscosity @ 100°C

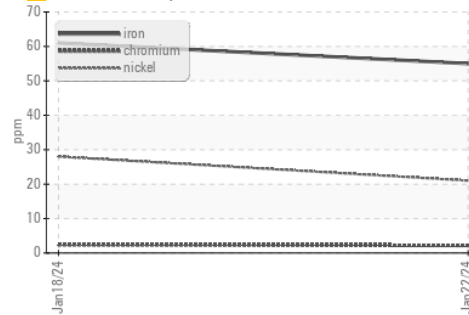


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

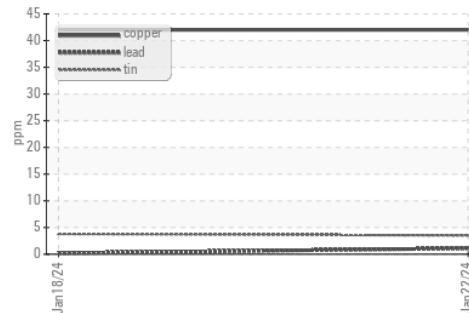
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.9	12.9	---

### GRAPHS

### ▲ Ferrous Alloys



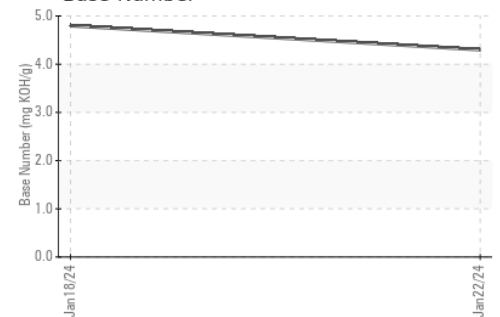
### Non-ferrous Metals



### Viscosity @ 100°C



### Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : GFL0098054    Recieved : 26 Jan 2024  
 Lab Number : 06071490    Diagnosed : 30 Jan 2024  
 Unique Number : 10848167    Diagnostician : Sean Felton  
 Test Package : FLEET

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)

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F: