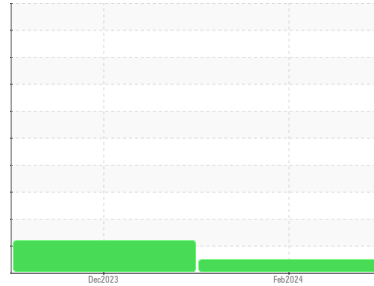




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**834093**

Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON GEO LD 15W40 (29 QTS)**

## DIAGNOSIS

### Recommendation

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

### Wear

All component wear rates are normal.

### 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. No other contaminants were detected 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>GFL0108087</b>	GFL0102426	---
Sample Date	Client Info		<b>07 Feb 2024</b>	15 Dec 2023	---
Machine Age	hrs	Client Info	<b>255</b>	226	---
Oil Age	hrs	Client Info	<b>226</b>	0	---
Oil Changed	Client Info		<b>Not Chngd</b>	N/A	---
Sample Status			<b>NORMAL</b>	ABNORMAL	---

## CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	<b>NEG</b>	NEG	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>53</b>	56	---
Chromium	ppm	ASTM D5185m >4	<b>2</b>	1	---
Nickel	ppm	ASTM D5185m >2	<b>1</b>	2	---
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	---
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >9	<b>32</b>	21	---
Lead	ppm	ASTM D5185m >30	<b>2</b>	<1	---
Copper	ppm	ASTM D5185m >35	<b>19</b>	21	---
Tin	ppm	ASTM D5185m >4	<b>2</b>	1	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	<b>22</b>	32	---
Barium	ppm	ASTM D5185m 5	<b>3</b>	4	---
Molybdenum	ppm	ASTM D5185m 50	<b>52</b>	53	---
Manganese	ppm	ASTM D5185m 0	<b>14</b>	15	---
Magnesium	ppm	ASTM D5185m 560	<b>778</b>	811	---
Calcium	ppm	ASTM D5185m 1510	<b>1090</b>	1172	---
Phosphorus	ppm	ASTM D5185m 780	<b>730</b>	826	---
Zinc	ppm	ASTM D5185m 870	<b>877</b>	932	---
Sulfur	ppm	ASTM D5185m 2040	<b>2339</b>	2515	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	<b>39</b>	44	---
Sodium	ppm	ASTM D5185m	<b>6</b>	8	---
Potassium	ppm	ASTM D5185m >20	<b>115</b>	▲ 100	---

## INFRA-RED

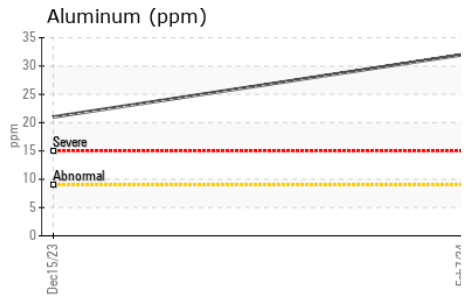
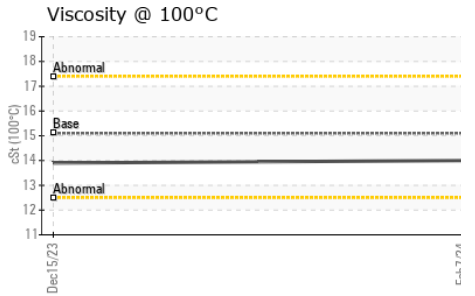
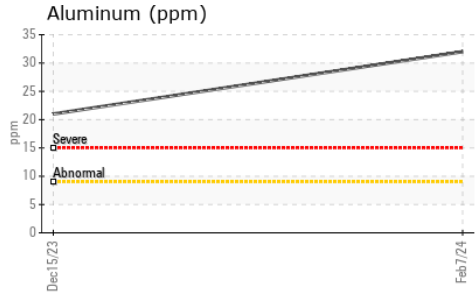
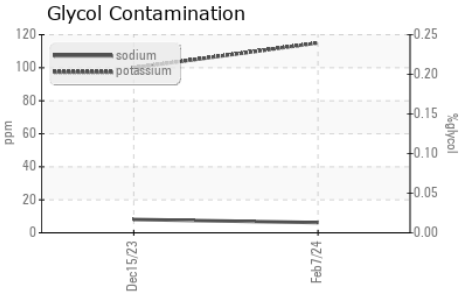
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	<b>0</b>	0.6	---
Nitration	Abs/cm	*ASTM D7624 >20	<b>10.1</b>	8.5	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>20.6</b>	20.5	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>18.9</b>	17.3	---
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>5.6</b>	7.1	---



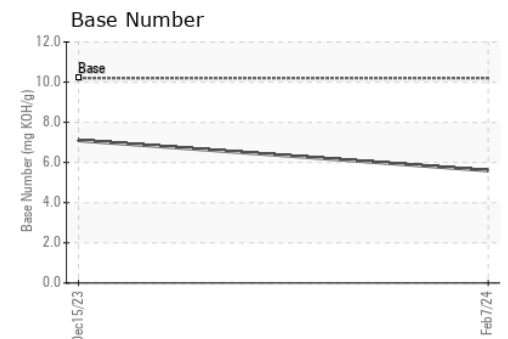
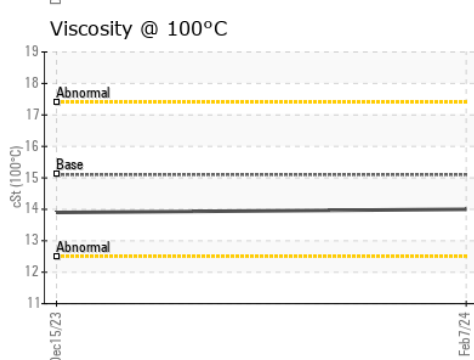
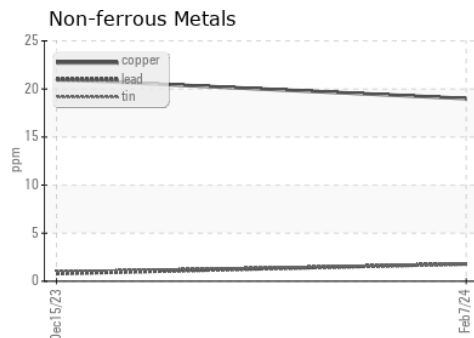
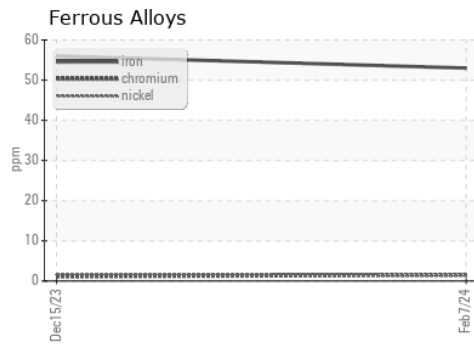
# OIL ANALYSIS REPORT



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	>0.1	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.0	13.9

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0108087 **Received** : 14 Feb 2024  
**Lab Number** : 06089386 **Tested** : 15 Feb 2024  
**Unique Number** : 10876831 **Diagnosed** : 16 Feb 2024 - Don Baldrige  
**Test Package** : FLEET

**GFL Environmental - 836 - Kansas City Hauling**  
 7801 East Truman Road  
 Kansas City, MO  
 US 64126  
 Contact: Christopher Gilkey  
 cgilkey@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)