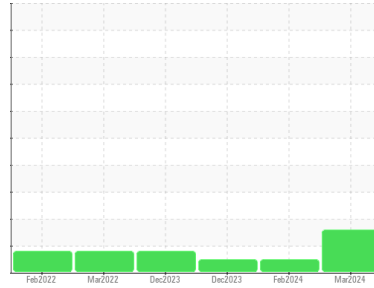




# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



Machine Id  
**945019-260276**

Component  
**Natural Gas Engine**

Fluid  
**PETRO CANADA DURON GEO LD 15W40 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

We advise that you check for the source of water entry. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please note that there was too much water present in the oil to perform a viscosity test.

### Wear

All component wear rates are normal.

### ▲ Contamination

There is a moderate concentration of water present in the oil.

### 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.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>GFL0106806</b>	GFL0092062	GFL0092028
Sample Date	Client Info	<b>12 Mar 2024</b>	14 Feb 2024	06 Dec 2023
Machine Age	hrs	<b>34229</b>	32182	33596
Oil Age	hrs	<b>600</b>	600	600
Oil Changed	Client Info	<b>Changed</b>	Changed	Changed
Sample Status		<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<b>10</b>	14	54
Chromium	ppm	ASTM D5185m >4	<b>0</b>	<1	3
Nickel	ppm	ASTM D5185m >2	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>0</b>	1	5
Lead	ppm	ASTM D5185m >30	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m >35	<b>&lt;1</b>	8	53
Tin	ppm	ASTM D5185m >4	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 50	<b>41</b>	14	5
Barium	ppm	ASTM D5185m 5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 50	<b>47</b>	46	64
Manganese	ppm	ASTM D5185m 0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m 560	<b>567</b>	560	723
Calcium	ppm	ASTM D5185m 1510	<b>1643</b>	1566	1693
Phosphorus	ppm	ASTM D5185m 780	<b>853</b>	698	822
Zinc	ppm	ASTM D5185m 870	<b>1020</b>	941	1135
Sulfur	ppm	ASTM D5185m 2040	<b>3096</b>	2362	2554

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >+100	<b>5</b>	4	13
Sodium	ppm	ASTM D5185m	<b>4</b>	5	10
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	2
Water	%	ASTM D6304 >0.1	<b>▲ 0.735</b>	---	---
ppm Water	ppm	ASTM D6304 >1000	<b>▲ 7350</b>	---	---

## INFRA-RED

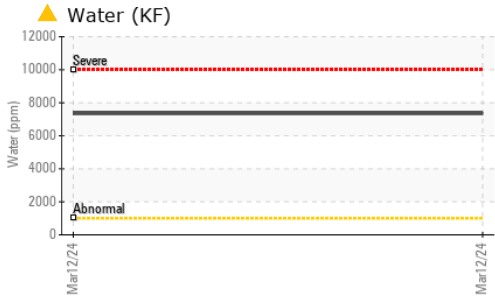
method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	<b>0.1</b>	0	0
Nitration	Abs/cm	*ASTM D7624 >20	<b>7.9</b>	10.7	12.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	<b>17.4</b>	21.1	23.9

## FLUID DEGRADATION

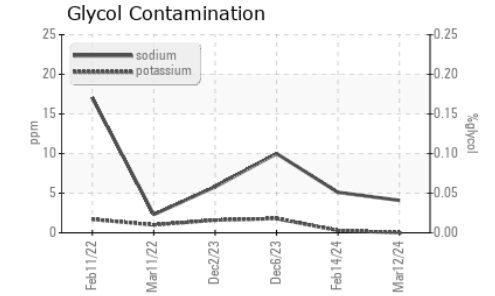
method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	<b>16.2</b>	17.2	18.0
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	<b>11.2</b>	4.4	4.2



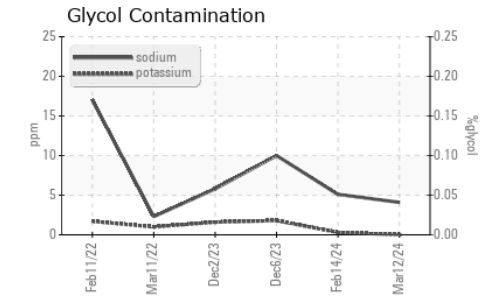
# OIL ANALYSIS REPORT



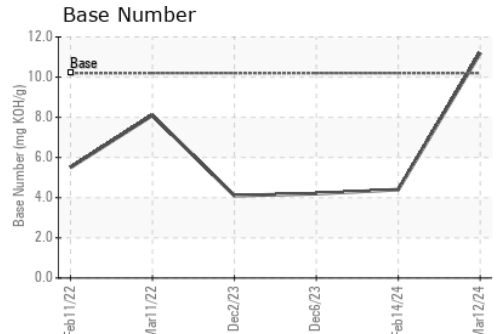
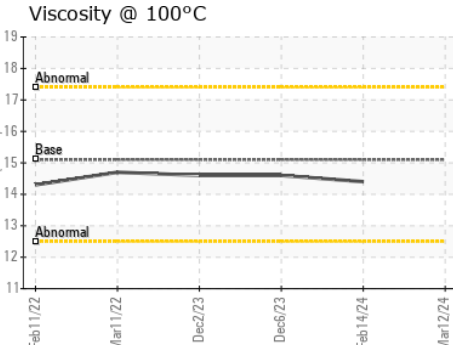
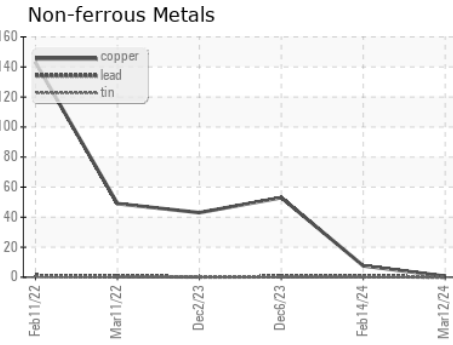
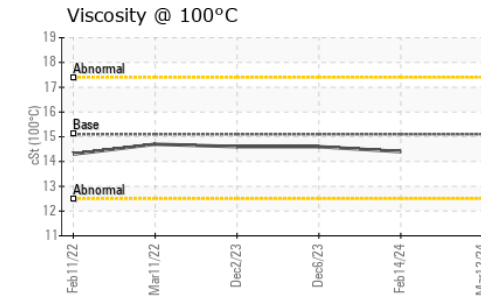
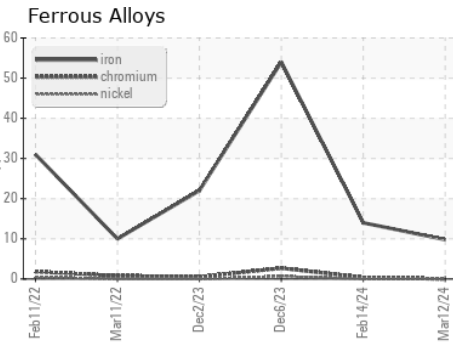
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	0.2%	NEG
Free Water	scalar	*Visual		NEG	NEG



FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	---	14.4



## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0106806 **Received** : 20 Mar 2024  
**Lab Number** : 06123377 **Tested** : 22 Mar 2024  
**Unique Number** : 10937528 **Diagnosed** : 22 Mar 2024 - Jonathan Hester  
**Test Package** : FLEET ( Additional Tests: Glycol, KF )

**GFL Environmental - 856 - Houston South**  
 8515 Highway 6 South  
 Houston, TX  
 US 77083  
 Contact: Apolinar Zacarias  
 pzacariascano@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: