



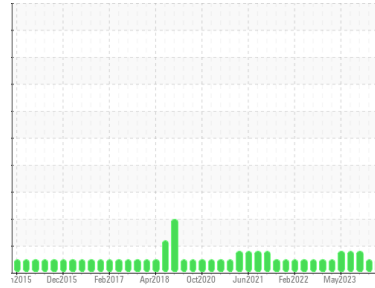
# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**(YA113970)**  
Machine Id  
**3439C**  
Component  
**Natural Gas Engine**  
Fluid  
**PETRO CANADA DURON GEO LD 15W40 (29 QTS)**



## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All 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>GFL0098149</b>	GFL0098108	GFL0088538
Sample Date	Client Info	<b>07 Feb 2024</b>	01 Nov 2023	13 Sep 2023
Machine Age	hrs	<b>15105</b>	15105	15105
Oil Age	hrs	<b>568</b>	297	508
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>NORMAL</b>	NORMAL	ABNORMAL

## CONTAMINATION

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

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >50	<b>5</b>	15	21
Chromium	ppm ASTM D5185m >4	<b>&lt;1</b>	<1	1
Nickel	ppm ASTM D5185m >2	<b>0</b>	<1	<1
Titanium	ppm ASTM D5185m	<b>0</b>	0	0
Silver	ppm ASTM D5185m >3	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >9	<b>4</b>	2	<1
Lead	ppm ASTM D5185m >30	<b>0</b>	<1	1
Copper	ppm ASTM D5185m >35	<b>&lt;1</b>	21	▲ 101
Tin	ppm ASTM D5185m >4	<b>&lt;1</b>	0	<1
Vanadium	ppm ASTM D5185m	<b>0</b>	0	<1
Cadmium	ppm ASTM D5185m	<b>0</b>	<1	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 50	<b>48</b>	15	11
Barium	ppm ASTM D5185m 5	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 50	<b>45</b>	55	55
Manganese	ppm ASTM D5185m 0	<b>&lt;1</b>	0	<1
Magnesium	ppm ASTM D5185m 560	<b>541</b>	592	634
Calcium	ppm ASTM D5185m 1510	<b>1351</b>	1598	1743
Phosphorus	ppm ASTM D5185m 780	<b>763</b>	738	775
Zinc	ppm ASTM D5185m 870	<b>885</b>	989	1004
Sulfur	ppm ASTM D5185m 2040	<b>2304</b>	2928	2728

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >+100	<b>10</b>	8	9
Sodium	ppm ASTM D5185m	<b>2</b>	2	7
Potassium	ppm ASTM D5185m >20	<b>2</b>	6	2

## INFRA-RED

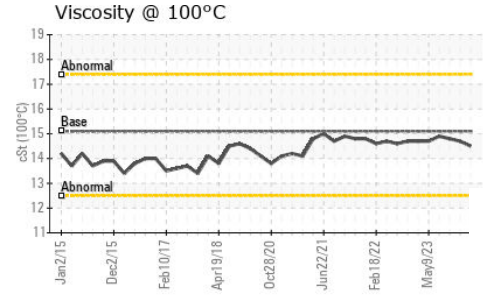
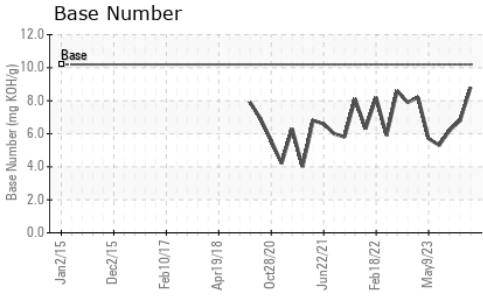
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844	<b>0</b>	0	0
Nitration	Abs/cm *ASTM D7624 >20	<b>6.0</b>	9.3	10.0
Sulfation	Abs/.1mm *ASTM D7415 >30	<b>19.0</b>	19.5	20.0

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	<b>15.3</b>	17.1	17.8
Base Number (BN)	mg KOH/g ASTM D2896 10.2	<b>8.8</b>	6.8	6.2



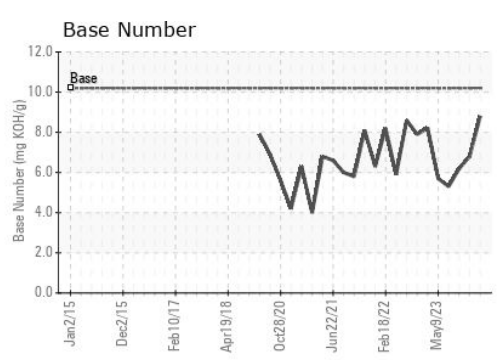
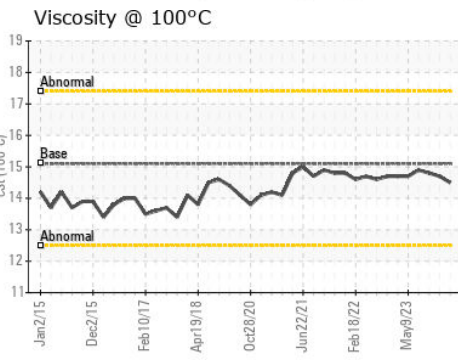
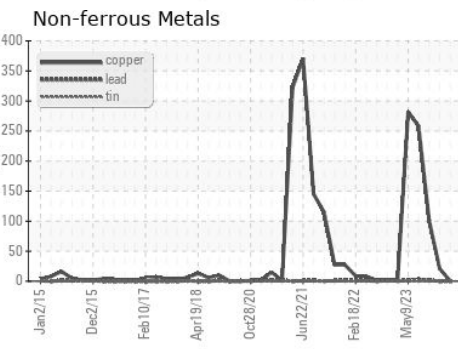
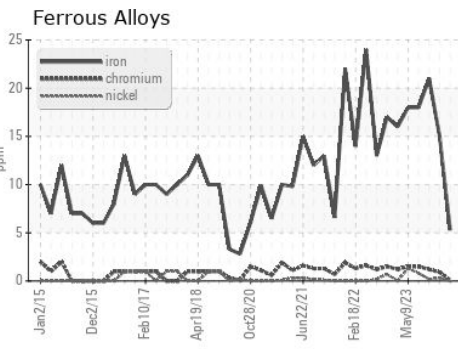
# OIL ANALYSIS REPORT



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	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.1	<b>14.5</b>	14.7	14.8

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0098149 **Received** : 07 Feb 2024  
**Lab Number** : **06082378** **Tested** : 08 Feb 2024  
**Unique Number** : 10869823 **Diagnosed** : 08 Feb 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 017 - Durham**  
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 Durham, NC  
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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)