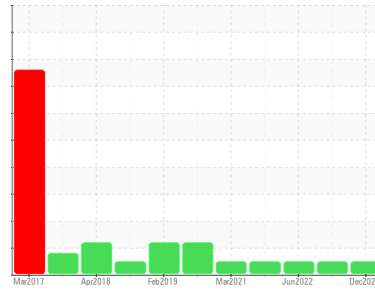




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**8401**  
 Component  
**Natural Gas Engine**  
 Fluid  
**PETRO CANADA DURON GEO LD 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

Metal levels are typical for a new component breaking in.

### Contamination

There is no indication of any contamination in the oil.

### Fluid Condition

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>GFL0101734</b>	GFL0077974	GFL0054162
Sample Date	Client Info		<b>01 Dec 2023</b>	07 May 2023	21 Jun 2022
Machine Age	hrs	Client Info	<b>948</b>	13966	0
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>N/A</b>	Changed	Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

## 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 D5185(m)	>50	<b>19</b>	16	7
Chromium	ppm	ASTM D5185(m)	>5	<b>2</b>	1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)	>5	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<b>2</b>	2	1
Lead	ppm	ASTM D5185(m)	>40	<b>4</b>	1	<1
Copper	ppm	ASTM D5185(m)	>150	<b>1</b>	1	1
Tin	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185(m)		<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)		<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	50	<b>11</b>	10	31
Barium	ppm	ASTM D5185(m)	5	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	50	<b>60</b>	57	48
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	560	<b>640</b>	600	545
Calcium	ppm	ASTM D5185(m)	1510	<b>1796</b>	1836	1538
Phosphorus	ppm	ASTM D5185(m)	780	<b>798</b>	783	709
Zinc	ppm	ASTM D5185(m)	870	<b>1010</b>	953	859
Sulfur	ppm	ASTM D5185(m)	2040	<b>2054</b>	2135	2053
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>25	<b>5</b>	4	6
Sodium	ppm	ASTM D5185(m)		<b>11</b>	8	3
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1

## INFRA-RED

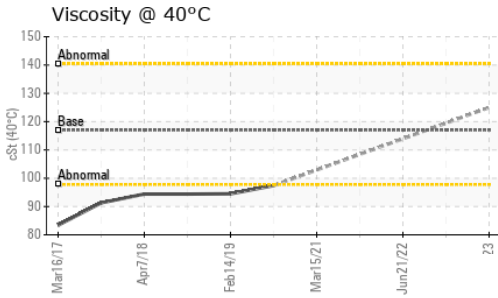
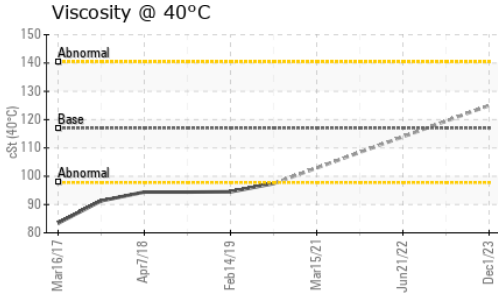
	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>13.5</b>	12.9	7.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>28.2</b>	26.1	21.8

## FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>25.5</b>	21.9	16.6



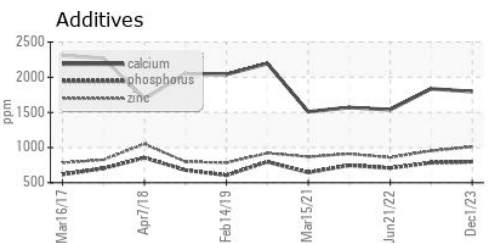
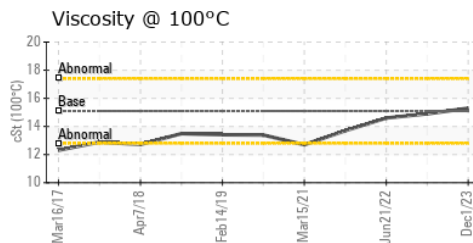
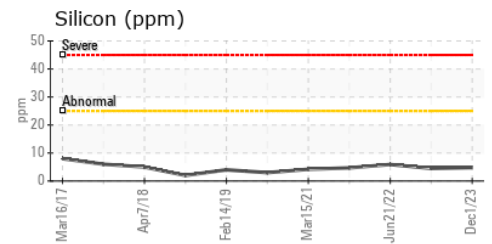
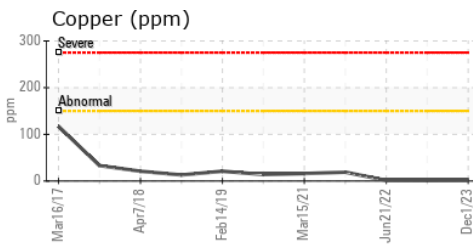
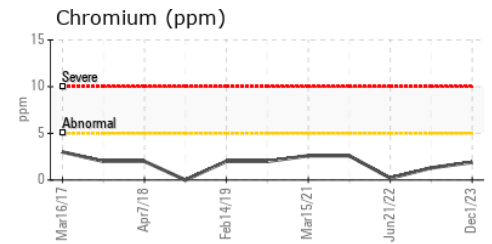
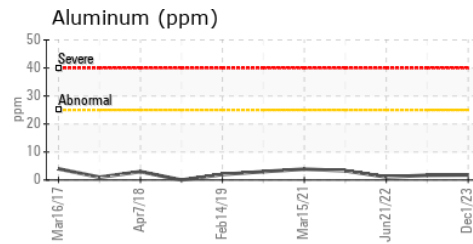
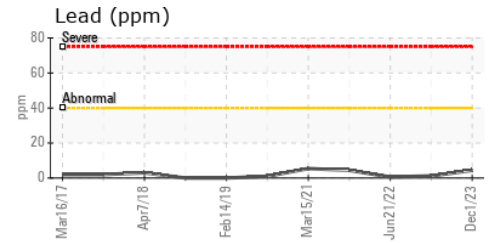
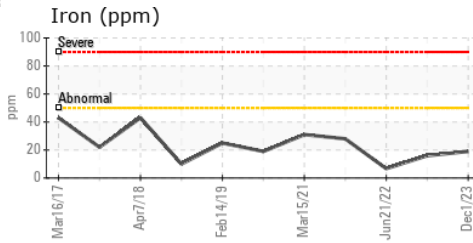
# OIL ANALYSIS REPORT



VISUAL	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	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	117.0	125	---
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	15.3	14.9
Viscosity Index (VI)	Scale	ASTM D2270*	134	127	---

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 554 - Edmonton SW  
**Sample No.** : GFL0101734 **Received** : 11 Dec 2023 **8409 -15th Street NW**  
**Lab Number** : 02602120 **Diagnosed** : 12 Dec 2023 **Edmonton, AB**  
**Unique Number** : 5695205 **Diagnostician** : Kevin Marson **CA T6P 0B8**  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI, Visual ) **Contact: Tim Greig**  
**tgreig@gflenv.com**

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.