



Machine Id  
**831051**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON GEO LD 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0112412</b>	GFL0070722	GFL0063714
Sample Date		Client Info		<b>14 Feb 2024</b>	23 Feb 2023	11 Jan 2023
Machine Age	hrs	Client Info		<b>3216</b>	1723	1723
Oil Age	hrs	Client Info		<b>219</b>	1075	580
Filter Age	hrs	Client Info		<b>219</b>	1075	580
Oil Changed		Client Info		<b>Changed</b>	Changed	N/A
Filter Changed		Client Info		<b>Changed</b>	Changed	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	<b>10</b>	30	21
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	3	2
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	1	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	5	3
Lead	ppm	ASTM D5185(m)	>40	<b>2</b>	3	1
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	5	4
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	2	1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

### CONTAMINATION

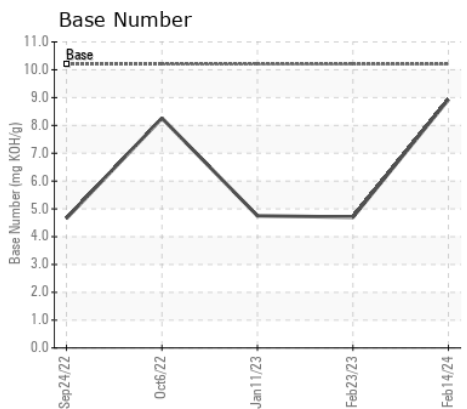
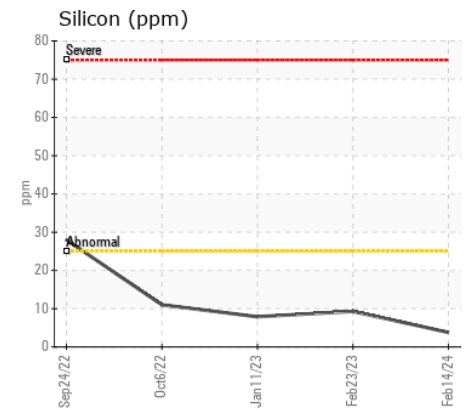
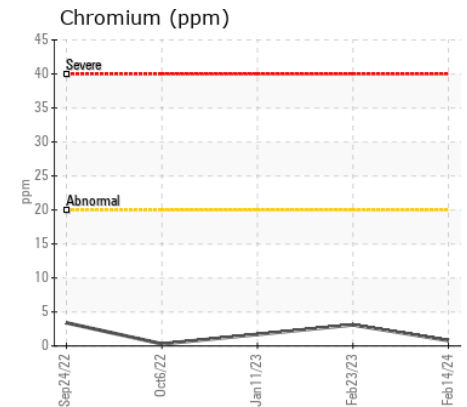
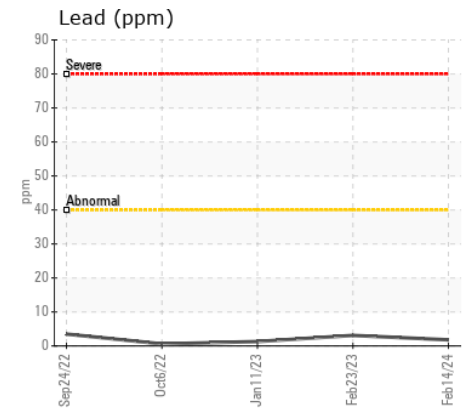
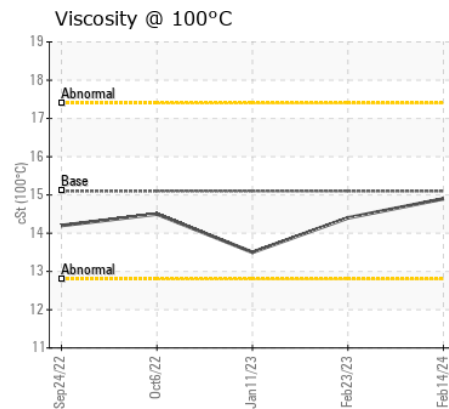
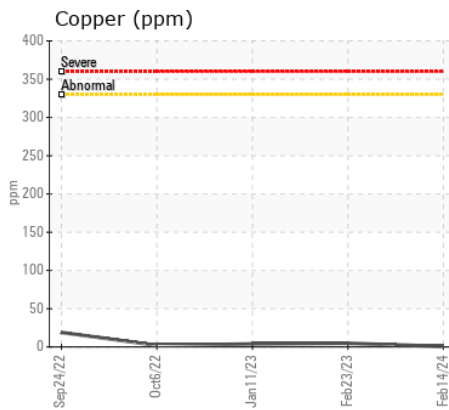
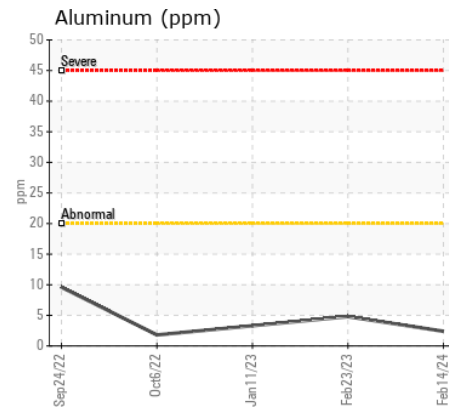
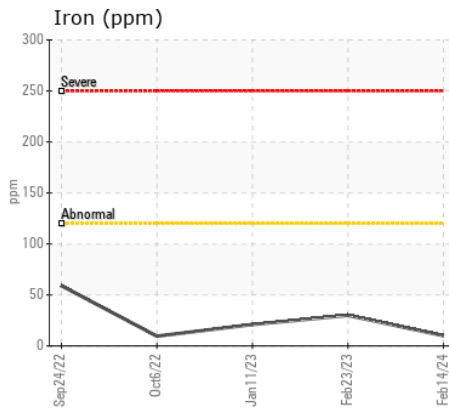
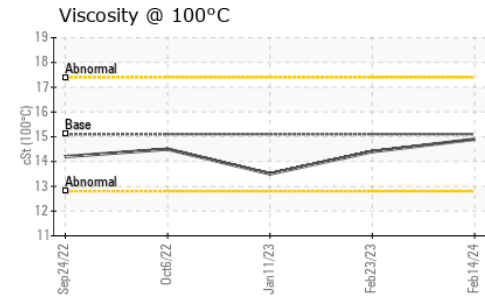
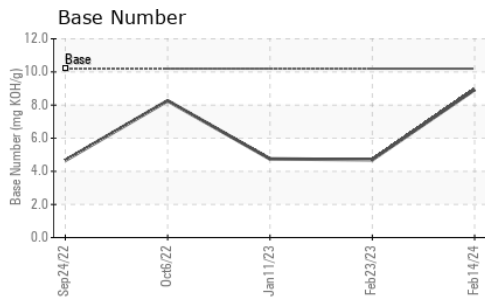
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>4</b>	9	8
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	7	5
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	0.0	NEG
Soot %	%	ASTM D7844*	>4	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.1</b>	9.5	7.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.0</b>	24.1	18.9
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

### 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.

Sodium	ppm	ASTM D5185(m)		<b>6</b>	11	9
Boron	ppm	ASTM D5185(m)	50	<b>19</b>	5	6
Barium	ppm	ASTM D5185(m)	5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	50	<b>50</b>	60	55
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	2	2
Magnesium	ppm	ASTM D5185(m)	560	<b>542</b>	655	572
Calcium	ppm	ASTM D5185(m)	1510	<b>1570</b>	1798	1641
Phosphorus	ppm	ASTM D5185(m)	780	<b>751</b>	849	707
Zinc	ppm	ASTM D5185(m)	870	<b>869</b>	989	900
Sulfur	ppm	ASTM D5185(m)	2040	<b>2051</b>	2134	2002
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>17.2</b>	16.7	12.6
Base Number (BN)	mg KOH/g	ASTM D2896*	10.2	<b>8.93</b>	4.70	4.75
Visc @ 100°C	cSt	ASTM D7279(m)	15.1	<b>14.9</b>	14.4	13.5



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0112412  
**Lab Number** : 02616963  
**Unique Number** : 5734073  
**Test Package** : MOB 2  
**Received** : 21 Feb 2024  
**Tested** : 22 Feb 2024  
**Diagnosed** : 22 Feb 2024 - Wes Davis

**GFL Environmental - 550 - Rocky View County**  
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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.