

Area  
**[1202757]**  
Machine Id  
**112020**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0102700</b>	GFL0082969	GFL0066454
Sample Date		Client Info		<b>03 Jan 2024</b>	18 Jul 2023	27 Jan 2023
Machine Age	hrs	Client Info		<b>14154</b>	13970	13765
Oil Age	hrs	Client Info		<b>0</b>	0	13765
Filter Age	hrs	Client Info		<b>0</b>	0	13765
Oil Changed		Client Info		<b>Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>200	<b>17</b>	22	12
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	<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)	>30	<b>7</b>	5	5
Lead	ppm	ASTM D5185(m)	>30	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>30	<b>2</b>	3	<1
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

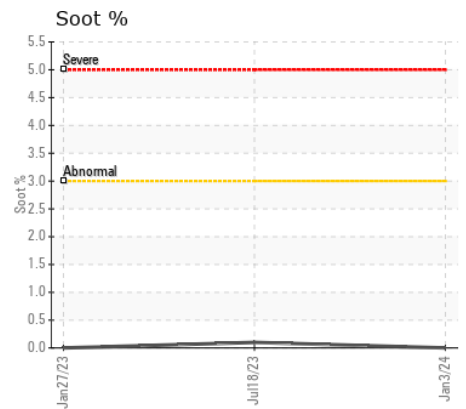
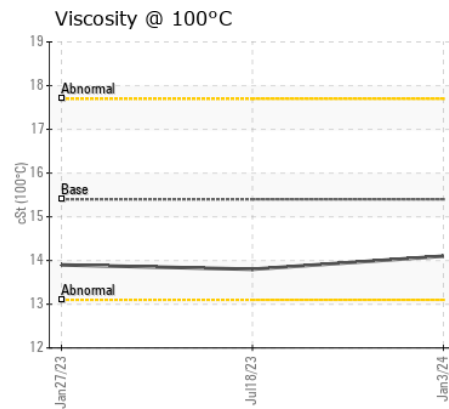
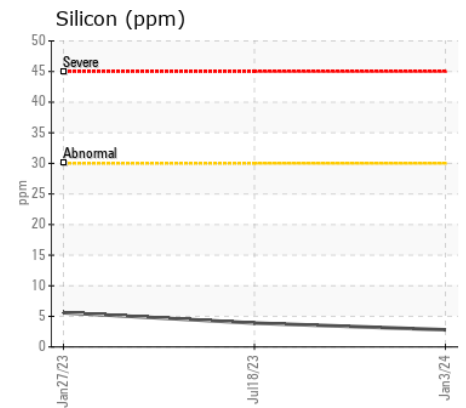
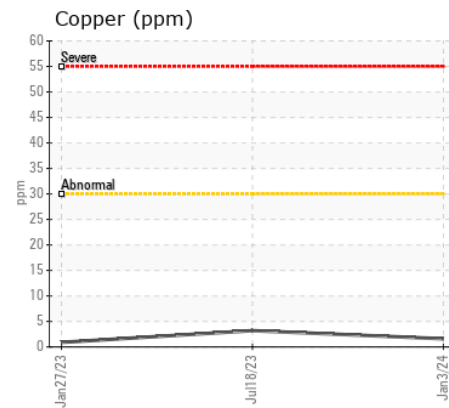
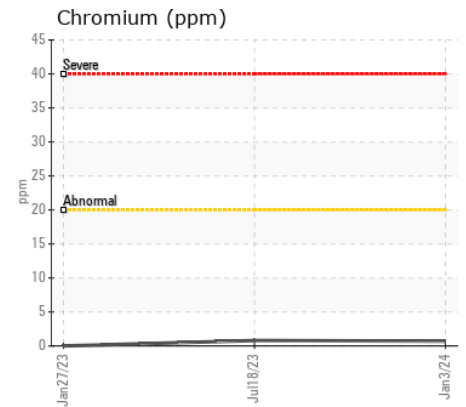
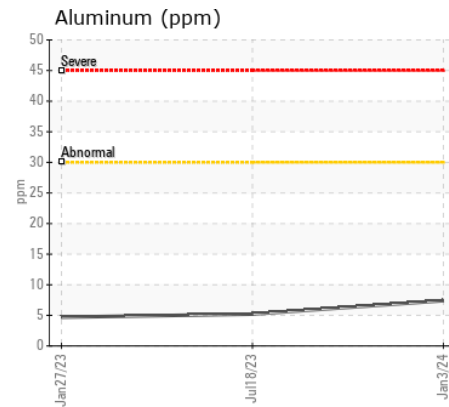
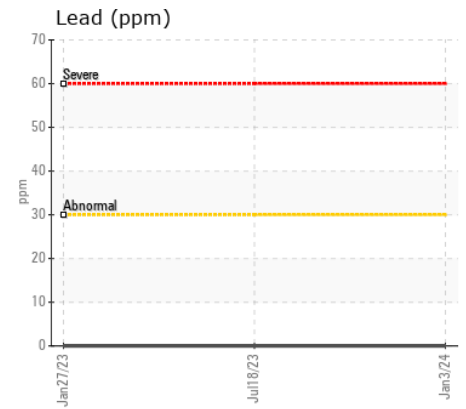
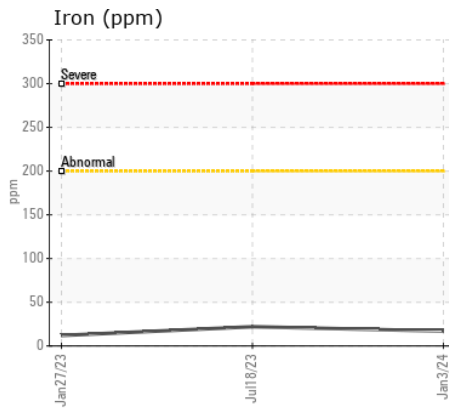
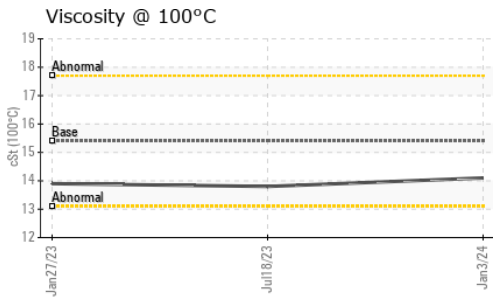
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>30	<b>3</b>	4	6
Potassium	ppm	ASTM D5185(m)	>20	<b>10</b>	3	2
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>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0</b>	0.1	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>5.5</b>	6.2	8.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>17.9</b>	18.1	18.5
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>1</b>	2	2
Boron	ppm	ASTM D5185(m)	0	<b>6</b>	20	84
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>60</b>	63	91
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>935</b>	786	37
Calcium	ppm	ASTM D5185(m)	1070	<b>1098</b>	1225	2212
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1005</b>	1047	1111
Zinc	ppm	ASTM D5185(m)	1270	<b>1181</b>	1156	1187
Sulfur	ppm	ASTM D5185(m)	2060	<b>2828</b>	2702	3376
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>13.4</b>	13.3	13.4
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>14.1</b>	13.8	13.9



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **GFL Environmental - 207 - Pickering SW**  
**Sample No.** : GFL0102700 **Received** : 05 Jan 2024 **1034 TOY AVENUE, PICKERING YARD**  
**Lab Number** : 02606715 **Diagnosed** : 05 Jan 2024 **PICKERING, ON**  
**Unique Number** : 5707801 **Diagnostician** : Wes Davis **CA L1W 3P1**  
**Test Package** : MOB 1

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.

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