



Area  
**(BC71231)**  
Machine Id  
**511022**  
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>GFL0029662</b>	GFL0092957	GFL0092938
Sample Date		Client Info		<b>20 Feb 2024</b>	27 Nov 2023	12 Sep 2023
Machine Age	hrs	Client Info		<b>3079</b>	2851	2612
Oil Age	hrs	Client Info		<b>1891</b>	1891	1891
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>14</b>	8	24
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	1
Nickel	ppm	ASTM D5185m	>15	<b>3</b>	2	6
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	2	5
Lead	ppm	ASTM D5185m	>40	<b>1</b>	0	3
Copper	ppm	ASTM D5185m	>330	<b>14</b>	10	44
Tin	ppm	ASTM D5185m	>15	<b>2</b>	<1	3
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

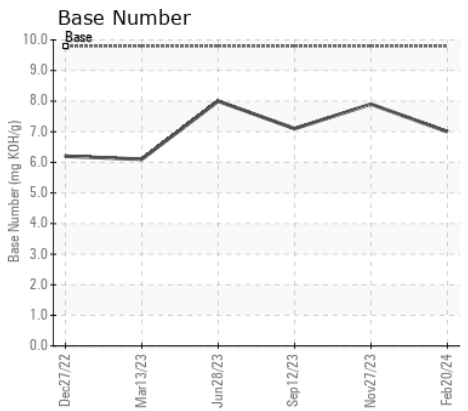
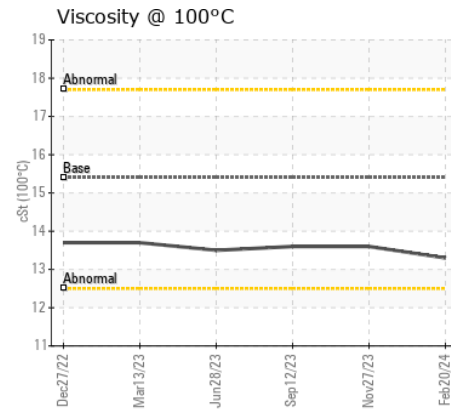
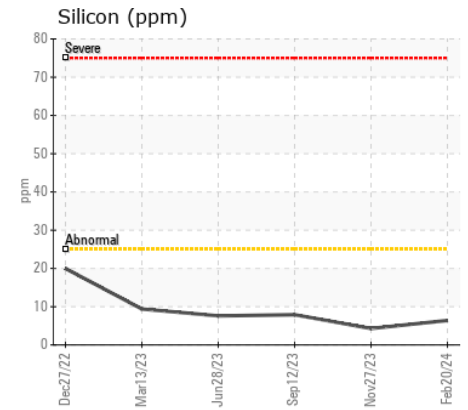
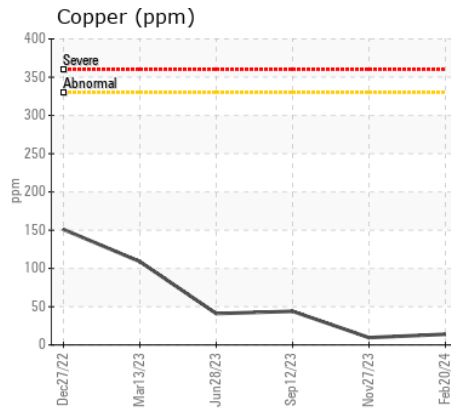
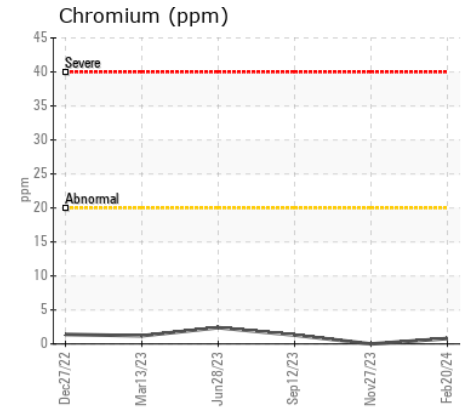
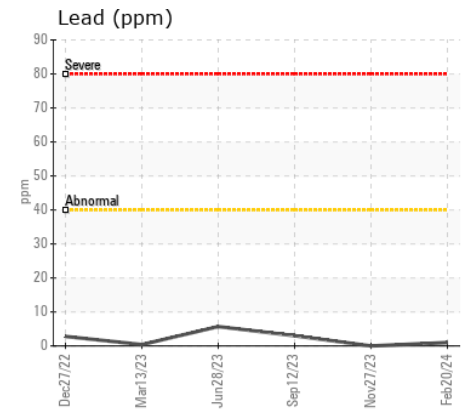
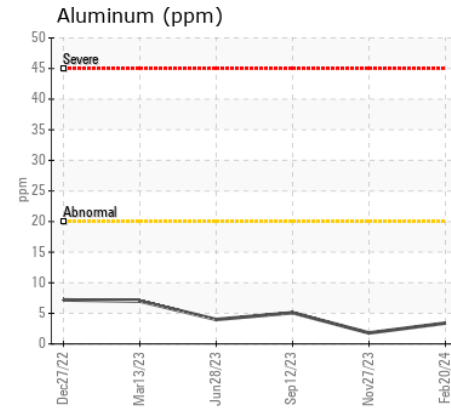
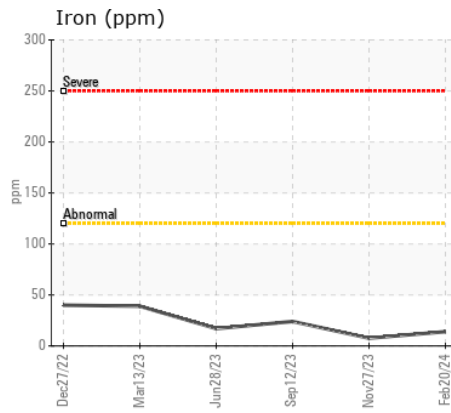
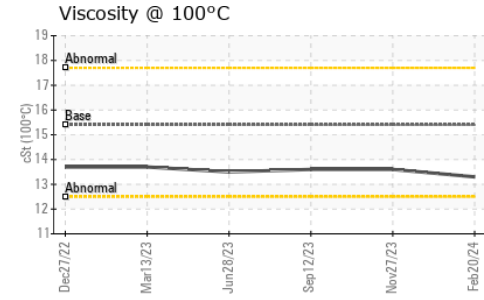
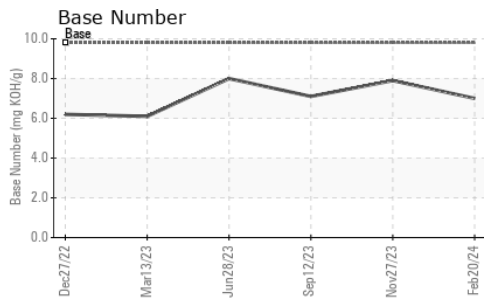
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	4	8
Potassium	ppm	ASTM D5185m	>20	<b>7</b>	3	16
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	>4	<b>0.5</b>	0.4	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.4</b>	7.5	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.6</b>	19.0	19.8
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
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 D5185m		<b>1</b>	1	2
Boron	ppm	ASTM D5185m	0	<b>2</b>	1	<1
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	44
Molybdenum	ppm	ASTM D5185m	60	<b>66</b>	61	60
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	2
Magnesium	ppm	ASTM D5185m	1010	<b>966</b>	989	916
Calcium	ppm	ASTM D5185m	1070	<b>1038</b>	1132	1036
Phosphorus	ppm	ASTM D5185m	1150	<b>1028</b>	1045	886
Zinc	ppm	ASTM D5185m	1270	<b>1233</b>	1271	1164
Sulfur	ppm	ASTM D5185m	2060	<b>2905</b>	2979	2624
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.6</b>	14.6	15.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7</b>	7.9	7.1
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.3</b>	13.6	13.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0029662  
**Lab Number** : 06105752  
**Unique Number** : 10903982  
**Test Package** : MOB1+

**Received** : 01 Mar 2024  
**Tested** : 01 Mar 2024  
**Diagnosed** : 01 Mar 2024 - Wes Davis

**GFL Environmental - 463 - Cheboygan**  
 501 N. Western Ave  
 Cheboygan, MI  
 US 49721  
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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)