



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**727090-361682**

Component  
**Diesel Engine**

Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor. ( Customer Sample  
Comment: Oil sample only no filter or oil was changed )

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0114471</b>	GFL0100467	GFL0093295
Sample Date		Client Info		<b>12 Mar 2024</b>	30 Nov 2023	12 Oct 2023
Machine Age	hrs	Client Info		<b>15931</b>	171834	168535
Oil Age	hrs	Client Info		<b>0</b>	171834	168535
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	MARGINAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>20</b>	14	13
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	1	2
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	<1	2
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

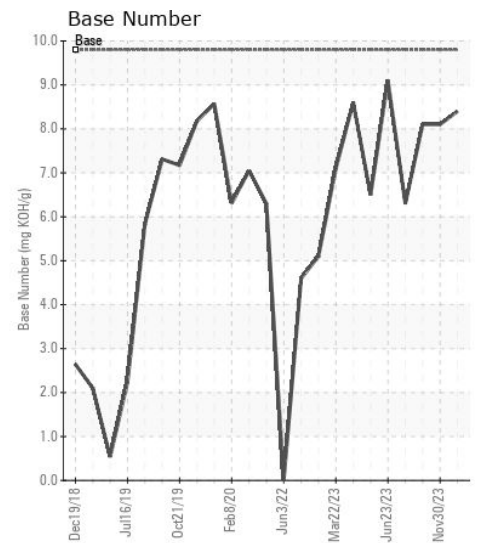
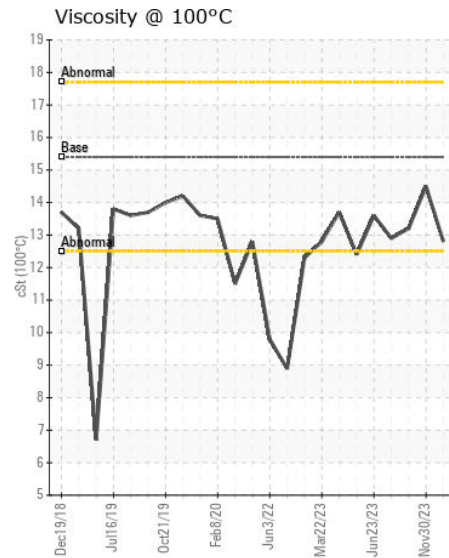
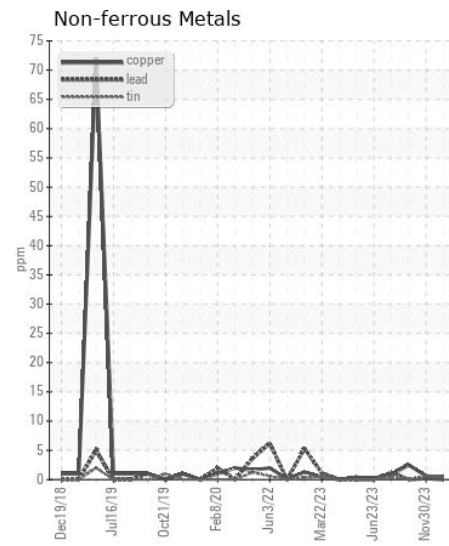
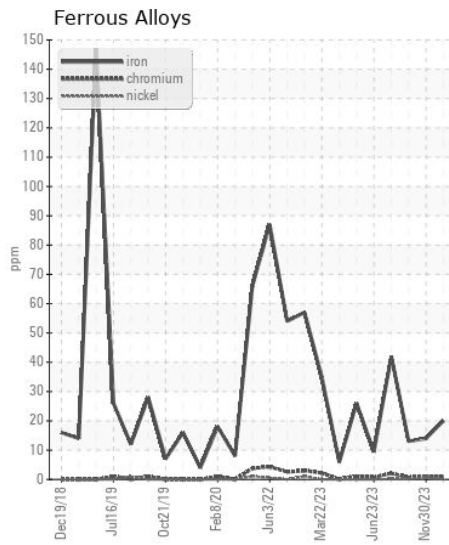
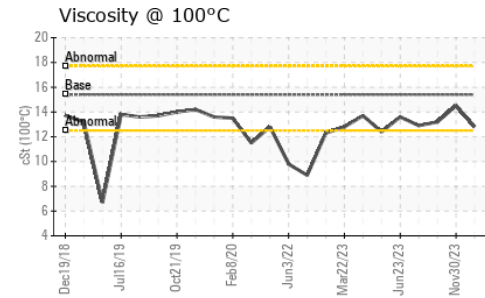
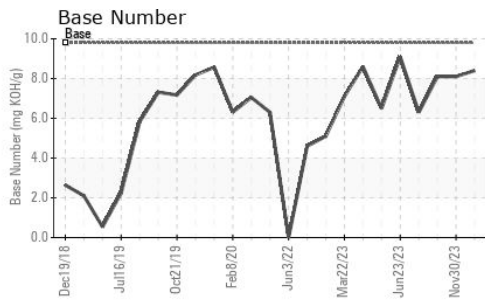
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>9</b>	6	6
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	2	2
Fuel		WC Method	>5	<b>&lt;1.0</b>	▲ 2.8	▲ 6.6
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.6	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.8</b>	8.3	8.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.4</b>	42.1	19.4
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>7</b>	14	14
Boron	ppm	ASTM D5185m	0	<b>8</b>	26	3
Barium	ppm	ASTM D5185m	0	<b>0</b>	11	0
Molybdenum	ppm	ASTM D5185m	60	<b>52</b>	46	59
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	1010	<b>841</b>	705	882
Calcium	ppm	ASTM D5185m	1070	<b>956</b>	792	1018
Phosphorus	ppm	ASTM D5185m	1150	<b>976</b>	1055	978
Zinc	ppm	ASTM D5185m	1270	<b>1151</b>	932	1179
Sulfur	ppm	ASTM D5185m	2060	<b>3408</b>	4116	3169
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.2</b>	47.6	16.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.4</b>	8.1	8.1
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.8</b>	14.5	13.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : GFL0114471

**Lab Number** : 06124208

**Unique Number** : 10938359

**Test Package** : FLEET

**Received** : 20 Mar 2024

**Tested** : 21 Mar 2024

**Diagnosed** : 23 Mar 2024 - Don Baldrige

**GFL Environmental - 865 - East Mount Hauling**

7213 East Mount Houston Road

Houston, TX

US 77050

Contact: Saul Castillo

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T:

F:

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)