



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

Machine Id  
**923012-565**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (28 QTS)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0110325</b>	GFL0110297	GFL0110280
Sample Date		Client Info		<b>11 Apr 2024</b>	05 Mar 2024	27 Feb 2024
Machine Age	hrs	Client Info		<b>23371</b>	23217	23205
Oil Age	hrs	Client Info		<b>580</b>	12	580
Filter Age	hrs	Client Info		<b>580</b>	12	580
Oil Changed		Client Info		<b>Changed</b>	Not Chngd	Changed
Filter Changed		Client Info		<b>Changed</b>	Not Chngd	Changed
Sample Status				<b>NORMAL</b>	MARGINAL	SEVERE

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	<b>21</b>	15	58
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	<1	3
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>1</b>	4	3
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	1
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>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

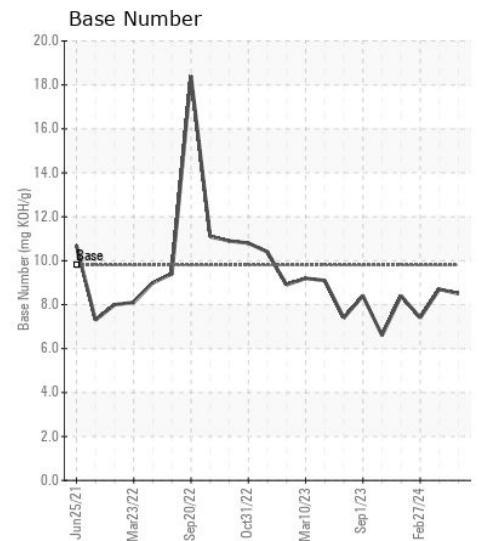
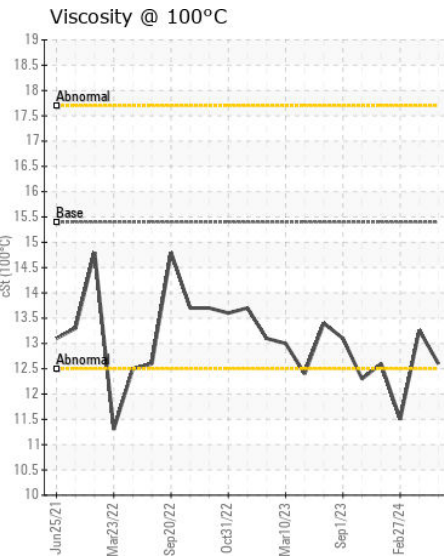
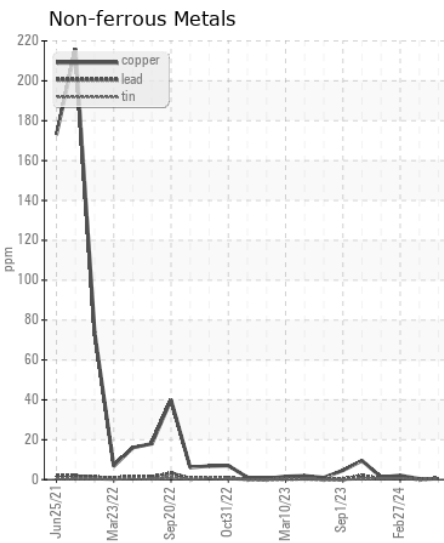
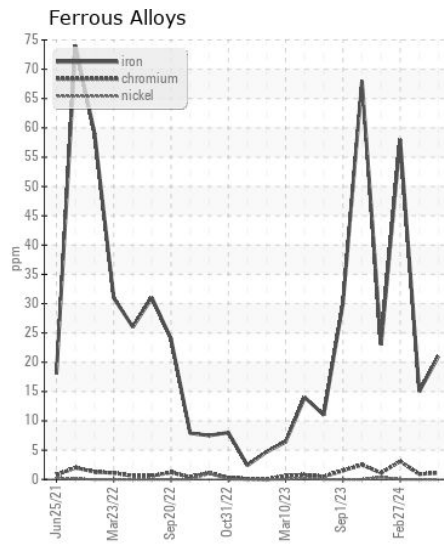
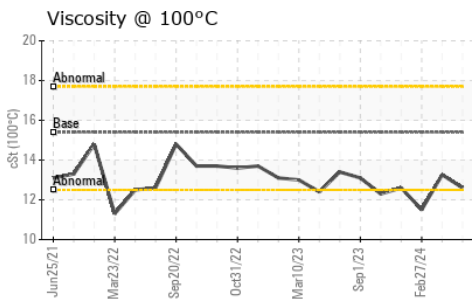
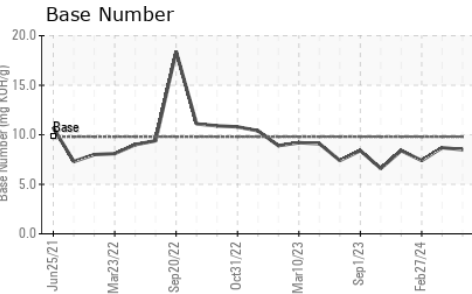
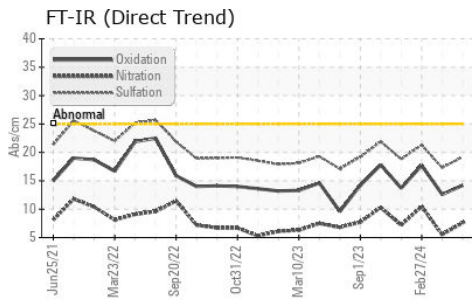
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	5	7
Potassium	ppm	ASTM D5185m	>20	<b>14</b>	2	1
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	▲ 2.4	▲ 7.9
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>6	<b>0.7</b>	0.2	1.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.6</b>	5.5	10.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.2</b>	17.3	21.3
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>10</b>	7	11
Boron	ppm	ASTM D5185m	0	<b>5</b>	12	7
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>58</b>	81	55
Manganese	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>821</b>	1183	800
Calcium	ppm	ASTM D5185m	1070	<b>1041</b>	1383	947
Phosphorus	ppm	ASTM D5185m	1150	<b>904</b>	1224	936
Zinc	ppm	ASTM D5185m	1270	<b>1104</b>	1554	1107
Sulfur	ppm	ASTM D5185m	2060	<b>3161</b>	4023	2515
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.2</b>	12.6	17.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.5</b>	8.7	7.4
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.6</b>	13.26	▲ 11.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0110325  
**Lab Number** : 06150963  
**Unique Number** : 10981041  
**Test Package** : FLEET

**Received** : 16 Apr 2024  
**Tested** : 17 Apr 2024  
**Diagnosed** : 17 Apr 2024 - Wes Davis

**GFL Environmental - 622 - Traverse City Hauling**  
 160 Hughes Dr  
 Traverse City, MI  
 US 49686  
 Contact: GARY BREWER

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)

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F: