



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



Machine Id  
**813017**  
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>GFL0122378</b>	GFL0108892	GFL0108973
Sample Date		Client Info		<b>17 May 2024</b>	04 Mar 2024	01 Mar 2024
Machine Age	hrs	Client Info		<b>4807</b>	130	4201
Oil Age	hrs	Client Info		<b>817</b>	600	3384
Filter Age	hrs	Client Info		<b>0</b>	600	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Changed	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>12</b>	66	28
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	2	1
Nickel	ppm	ASTM D5185m	>5	<b>2</b>	7	8
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	8	2
Lead	ppm	ASTM D5185m	>40	<b>1</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>2</b>	80	4
Tin	ppm	ASTM D5185m	>15	<b>2</b>	2	<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**

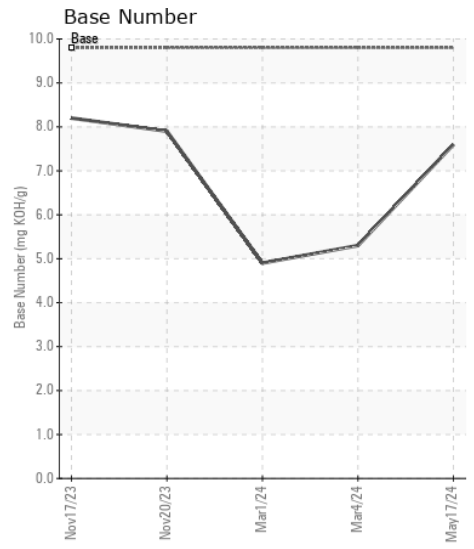
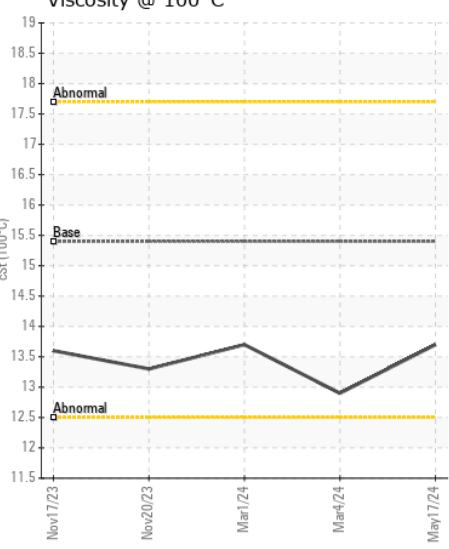
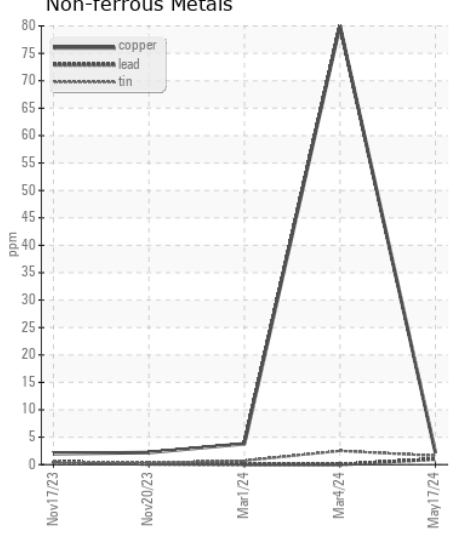
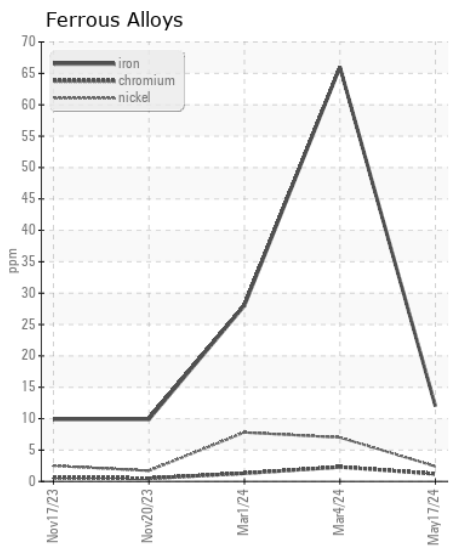
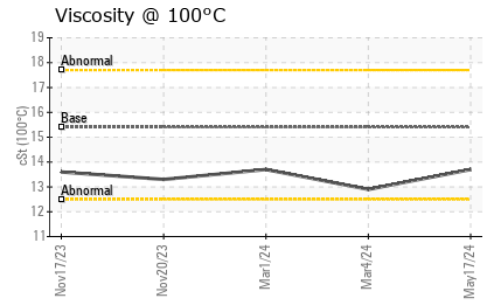
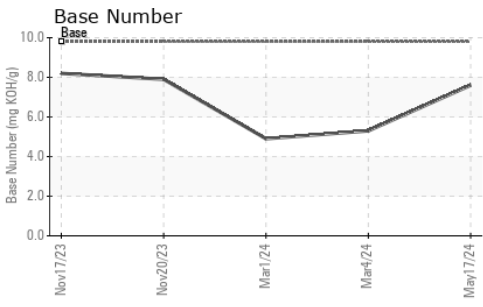
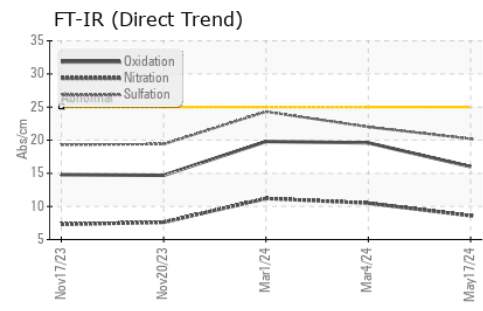
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>4</b>	15	5
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	22	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	>4	<b>0.7</b>	0.8	1.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.6</b>	10.5	11.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.2</b>	22.0	24.3
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>3</b>	9	6
Boron	ppm	ASTM D5185m	0	<b>0</b>	10	<1
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>60</b>	99	64
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>967</b>	1436	969
Calcium	ppm	ASTM D5185m	1070	<b>1105</b>	1720	1051
Phosphorus	ppm	ASTM D5185m	1150	<b>1105</b>	1394	1009
Zinc	ppm	ASTM D5185m	1270	<b>1268</b>	1910	1278
Sulfur	ppm	ASTM D5185m	2060	<b>3468</b>	3952	2572
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.0</b>	19.6	19.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.6</b>	5.3	4.9
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.7</b>	12.9	13.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0122378  
**Lab Number** : 06187374  
**Unique Number** : 11044126  
**Test Package** : FLEET  
**Received** : 22 May 2024  
**Tested** : 23 May 2024  
**Diagnosed** : 23 May 2024 - Wes Davis

**GFL Environmental - 415 - Michigan East**  
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 Sterling Heights, MI  
 US 48313  
 Contact: Frank Wolak  
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 T: (586)825-9514  
 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)