



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



Machine Id  
**710034**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0108418</b>	GFL0098421	GFL0089493
Sample Date		Client Info		<b>06 Feb 2024</b>	13 Nov 2023	14 Aug 2023
Machine Age	hrs	Client Info		<b>6434</b>	5870	5314
Oil Age	hrs	Client Info		<b>6434</b>	5870	0
Filter Age	hrs	Client Info		<b>0</b>	5870	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>21</b>	20	19
Chromium	ppm	ASTM D5185m	>5	<b>2</b>	<1	1
Nickel	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>30	<b>1</b>	2	2
Lead	ppm	ASTM D5185m	>30	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>150	<b>3</b>	2	3
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

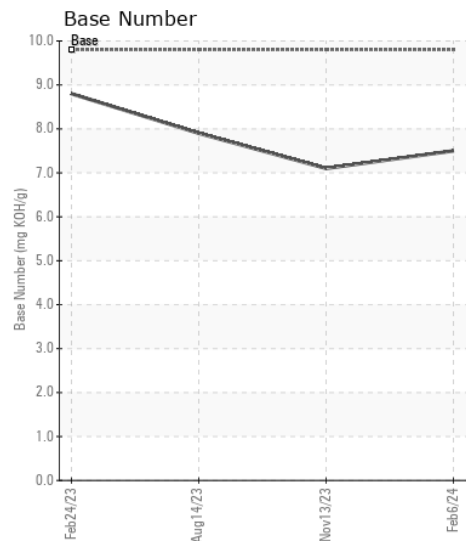
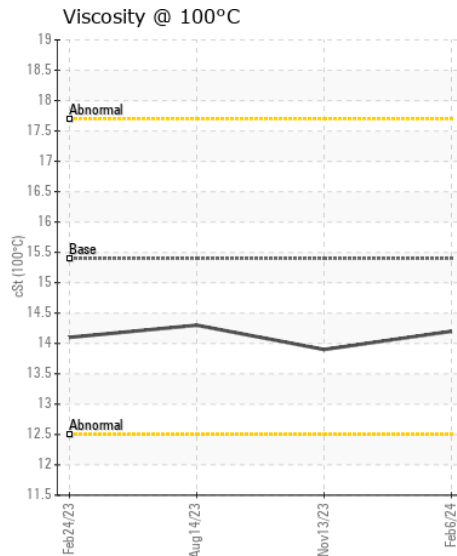
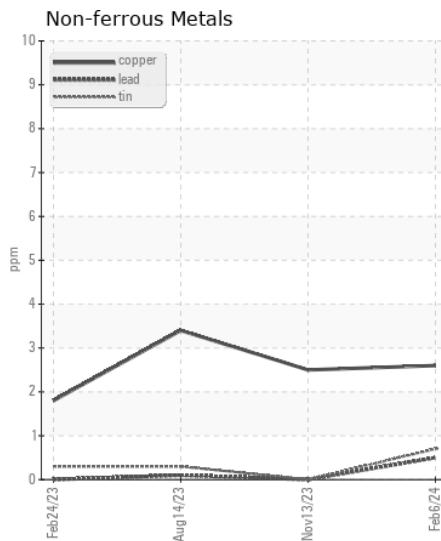
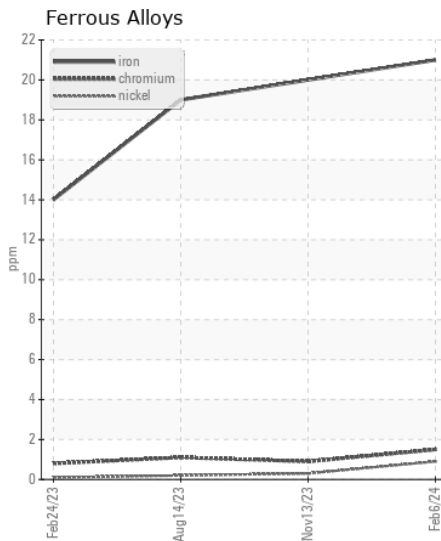
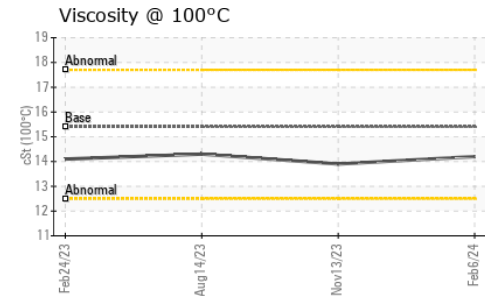
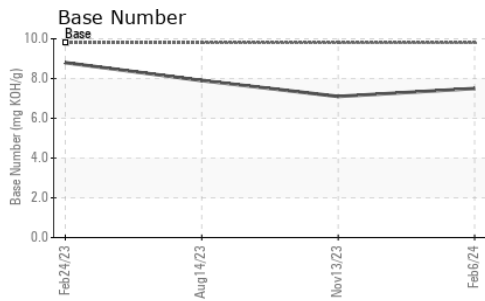
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>6</b>	6	6
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	6	1
Fuel		WC Method	>5	<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>0.5</b>	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.6</b>	10.4	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.3</b>	20.7	19.0
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>2</b>	4	7
Boron	ppm	ASTM D5185m	0	<b>10</b>	0	0
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>65</b>	61	63
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>1022</b>	931	1019
Calcium	ppm	ASTM D5185m	1070	<b>1114</b>	1067	1149
Phosphorus	ppm	ASTM D5185m	1150	<b>1053</b>	973	1066
Zinc	ppm	ASTM D5185m	1270	<b>1302</b>	1226	1316
Sulfur	ppm	ASTM D5185m	2060	<b>3153</b>	3063	3614
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.4</b>	18.8	16.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.5</b>	7.1	7.9
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.2</b>	13.9	14.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0108418  
**Lab Number** : 06085257  
**Unique Number** : 10872702  
**Test Package** : FLEET  
**Received** : 09 Feb 2024  
**Tested** : 12 Feb 2024  
**Diagnosed** : 12 Feb 2024 - Wes Davis

**GFL Environmental - 918 - Hartland HC**  
 630 E Industrial Drive  
 Hartland, WI  
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 Contact: David McCall  
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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)