



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



Machine Id  
**913173**  
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>GFL0104564</b>	GFL0092630	GFL0082535
Sample Date		Client Info		<b>24 Jan 2024</b>	12 Oct 2023	27 Jul 2023
Machine Age	hrs	Client Info		<b>1890</b>	1122	622
Oil Age	hrs	Client Info		<b>768</b>	500	622
Filter Age	hrs	Client Info		<b>768</b>	500	622
Oil Changed		Client Info		<b>Changed</b>	Not Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	<b>26</b>	25	56
Chromium	ppm	ASTM D5185m	>20	<b>1</b>	<1	2
Nickel	ppm	ASTM D5185m	>5	<b>7</b>	8	9
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	3	6
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>4</b>	11	40
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	4
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**

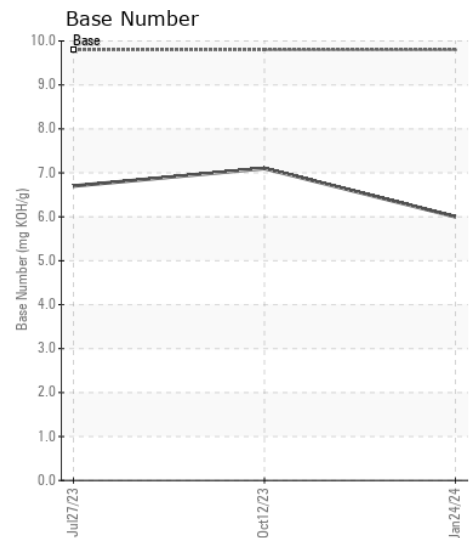
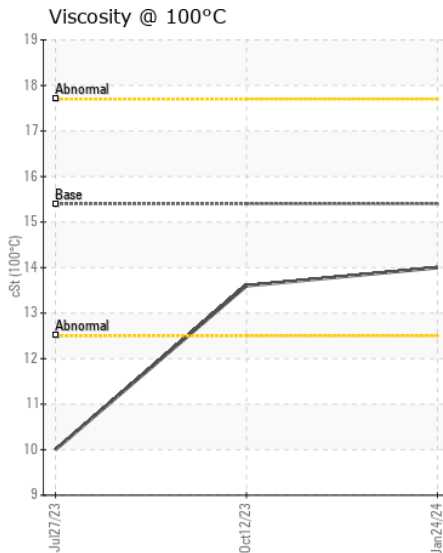
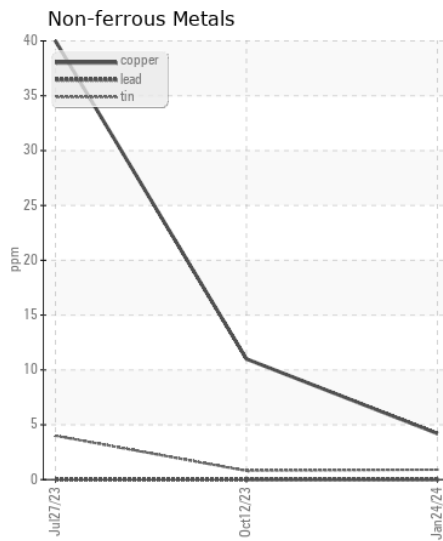
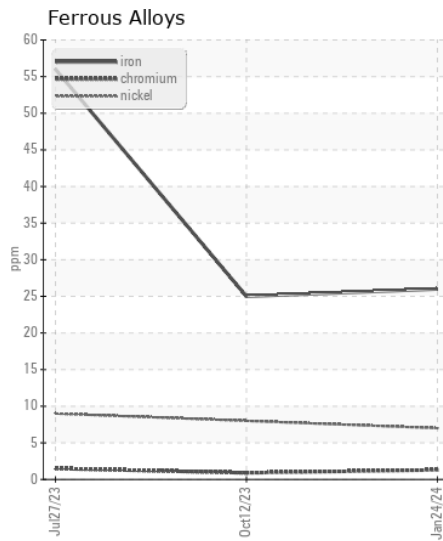
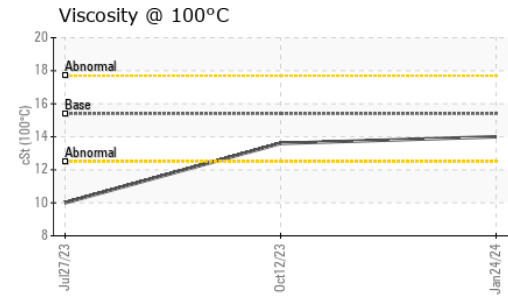
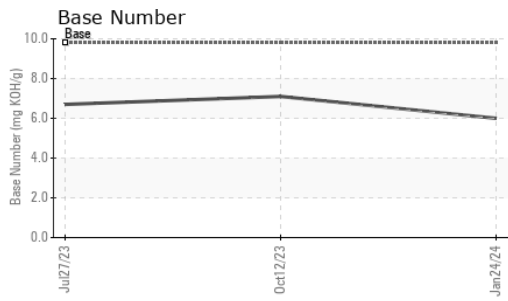
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>5</b>	11	▲ 103
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	9	11
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	0.3
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>4	<b>0.8</b>	0.6	0.7
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.3</b>	9.0	11.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.5</b>	20.0	25.5
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>	5	4
Boron	ppm	ASTM D5185m	0	<b>2</b>	6	185
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>62</b>	66	139
Manganese	ppm	ASTM D5185m	0	<b>1</b>	1	6
Magnesium	ppm	ASTM D5185m	1010	<b>972</b>	962	707
Calcium	ppm	ASTM D5185m	1070	<b>1054</b>	1088	1631
Phosphorus	ppm	ASTM D5185m	1150	<b>992</b>	957	718
Zinc	ppm	ASTM D5185m	1270	<b>1290</b>	1230	888
Sulfur	ppm	ASTM D5185m	2060	<b>2618</b>	2653	2733
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.0</b>	16.6	25.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>6.0</b>	7.1	6.7
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.0</b>	13.6	▲ 10.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0104564 **Received** : 30 Jan 2024  
**Lab Number** : 06074449 **Diagnosed** : 31 Jan 2024  
**Unique Number** : 10856540 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 947 - WB Horicon HC**  
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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)