



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



Machine Id  
**727122**  
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>GFL0097485</b>	GFL0097459	GFL0067554
Sample Date		Client Info		<b>08 Jan 2024</b>	10 Nov 2023	21 Jun 2023
Machine Age	hrs	Client Info		<b>12108</b>	11863	11040
Oil Age	hrs	Client Info		<b>126994</b>	0	599
Filter Age	hrs	Client Info		<b>0</b>	0	599
Oil Changed		Client Info		<b>N/A</b>	N/A	Changed
Filter Changed		Client Info		<b>N/A</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	ABNORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>80	<b>34</b>	15	▲ 97
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	▲ 6
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	0	1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>2</b>	2	7
Lead	ppm	ASTM D5185m	>30	<b>&lt;1</b>	0	3
Copper	ppm	ASTM D5185m	>150	<b>&lt;1</b>	<1	3
Tin	ppm	ASTM D5185m	>5	<b>0</b>	0	1
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

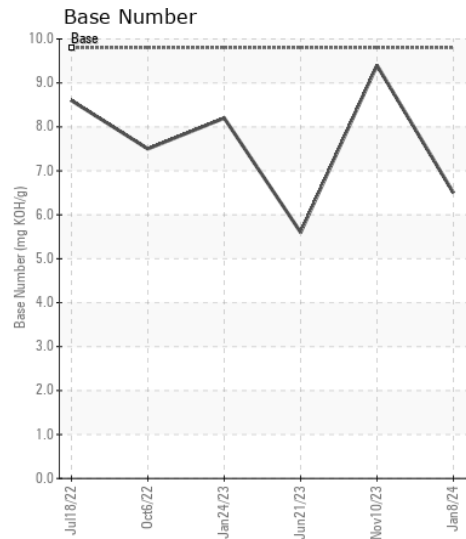
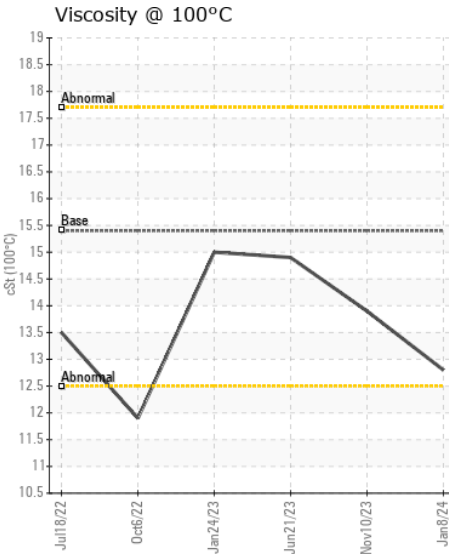
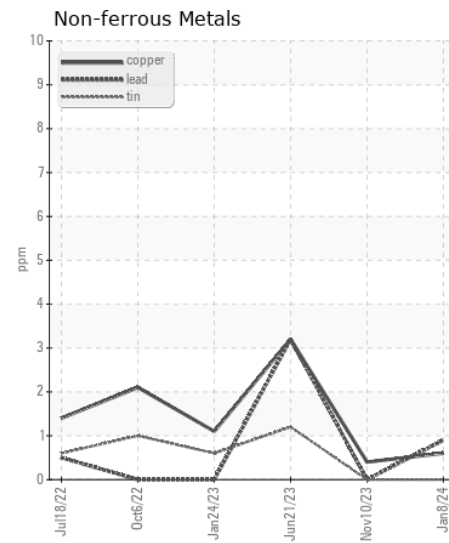
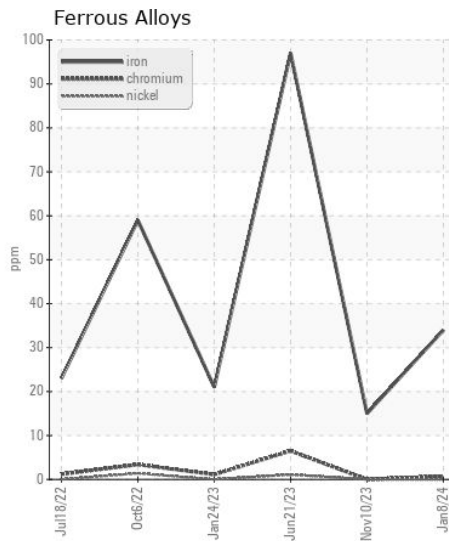
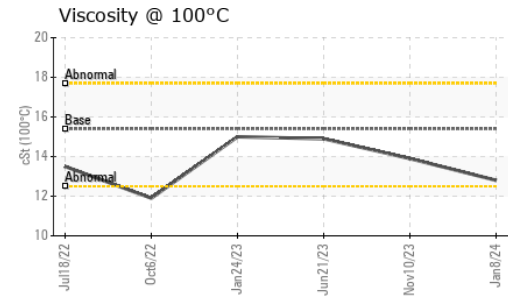
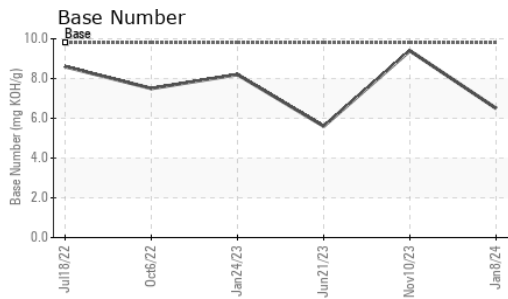
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>4</b>	5	16
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	4	9
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>0.8</b>	0.4	2
Nitration	Abs/cm	*ASTM D7624	>20	<b>13.2</b>	5.9	18.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.7</b>	17.9	36.6
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>	▲ 189	13
Boron	ppm	ASTM D5185m	0	<b>5</b>	5	26
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m	60	<b>55</b>	64	21
Manganese	ppm	ASTM D5185m	0	<b>0</b>	0	1
Magnesium	ppm	ASTM D5185m	1010	<b>886</b>	923	834
Calcium	ppm	ASTM D5185m	1070	<b>1034</b>	1046	1605
Phosphorus	ppm	ASTM D5185m	1150	<b>906</b>	1049	874
Zinc	ppm	ASTM D5185m	1270	<b>1216</b>	1208	1069
Sulfur	ppm	ASTM D5185m	2060	<b>2616</b>	3108	3687
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>23.7</b>	13.1	39.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>6.5</b>	9.4	5.6
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.8</b>	13.9	14.9



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0097485 **Received** : 11 Jan 2024  
**Lab Number** : 06057772 **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10829154 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 641 - Alpena**  
 1241 KING SETTLEMENT RD  
 ALPENA, MI  
 US 49707  
 Contact: DYLAN TOLAN  
 dylan.tolan@gflenv.com  
 T: (989)854-7203  
 F:

Certificate L2367  
 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)