



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



Machine Id  
**411043**  
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>GFL0104996</b>	GFL0095327	GFL0081472
Sample Date		Client Info		<b>09 Jan 2024</b>	06 Dec 2023	04 Sep 2023
Machine Age	hrs	Client Info		<b>6259</b>	6098	5438
Oil Age	hrs	Client Info		<b>650</b>	650	650
Filter Age	hrs	Client Info		<b>650</b>	650	650
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	>120	<b>16</b>	4	9
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	2	2
Tin	ppm	ASTM D5185m	>15	<b>0</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**

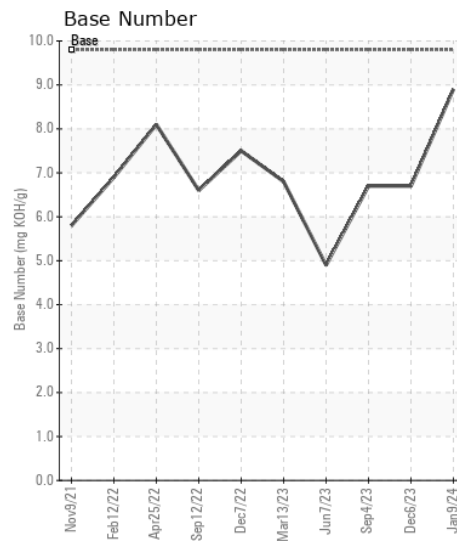
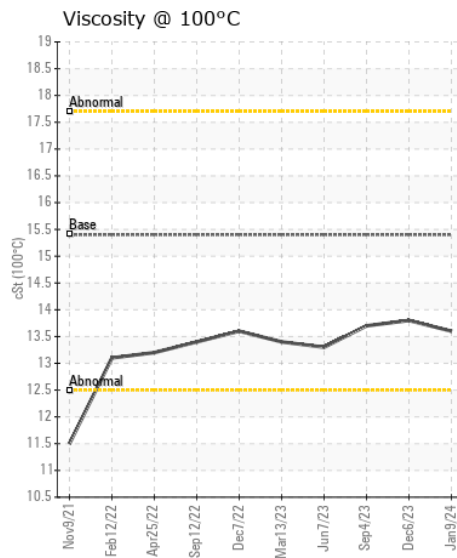
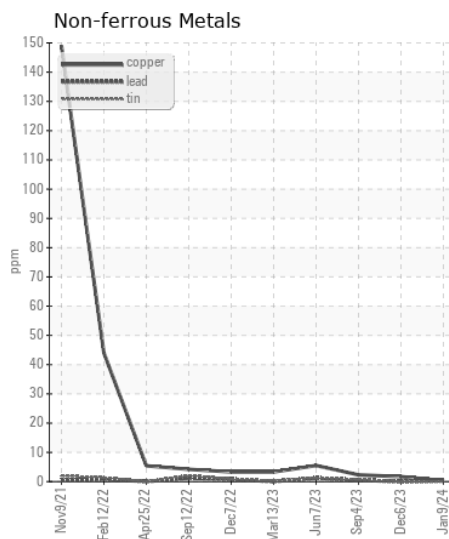
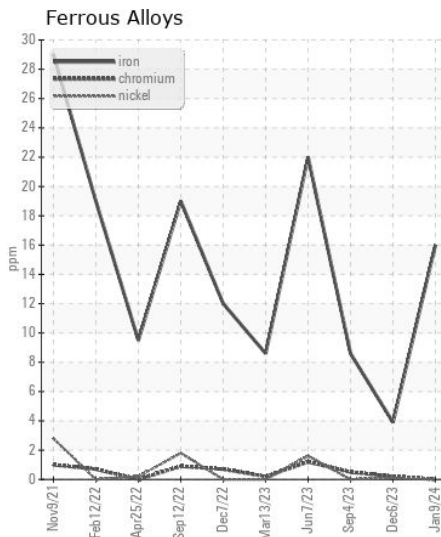
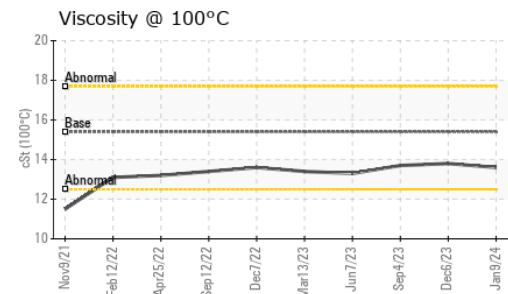
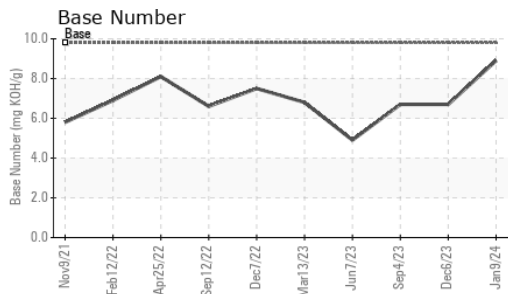
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>3</b>	3	4
Potassium	ppm	ASTM D5185m	>20	<b>33</b>	2	3
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>0.9</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.0</b>	8.0	8.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.2</b>	19.1	19.4
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>31</b>	3	5
Boron	ppm	ASTM D5185m	0	<b>&lt;1</b>	2	0
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>60</b>	59	61
Manganese	ppm	ASTM D5185m	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>935</b>	922	1094
Calcium	ppm	ASTM D5185m	1070	<b>1004</b>	1026	1205
Phosphorus	ppm	ASTM D5185m	1150	<b>962</b>	978	1046
Zinc	ppm	ASTM D5185m	1270	<b>1252</b>	1219	1352
Sulfur	ppm	ASTM D5185m	2060	<b>2916</b>	2750	3437
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.8</b>	15.5	16.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>8.9</b>	6.7	6.7
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.6</b>	13.8	13.7



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0104996 **Received** : 11 Jan 2024  
**Lab Number** : 06057694 **Diagnosed** : 11 Jan 2024  
**Unique Number** : 10823643 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 893 - OK East Hauling**  
 2100 Lilly Street  
 Seminole, OK  
 US 74868  
 Contact: Roger Barlow  
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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)