



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

Machine Id  
**812034**  
 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>GFL011955</b>	GFL0109272	GFL0066726
Sample Date		Client Info		<b>13 Mar 2024</b>	12 Feb 2024	21 Feb 2023
Machine Age	hrs	Client Info		<b>3384</b>	3228	2989
Oil Age	hrs	Client Info		<b>0</b>	237	600
Filter Age	hrs	Client Info		<b>0</b>	237	600
Oil Changed		Client Info		<b>Not Changd</b>	Changed	Changed
Filter Changed		Client Info		<b>Not Changd</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ATTENTION	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	<b>10</b>	4	11
Chromium	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>7</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>3</b>	2	8
Lead	ppm	ASTM D5185m	>45	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m	>85	<b>&lt;1</b>	0	1
Tin	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
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**

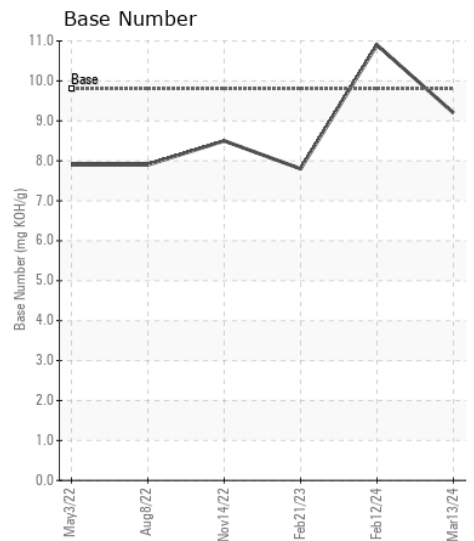
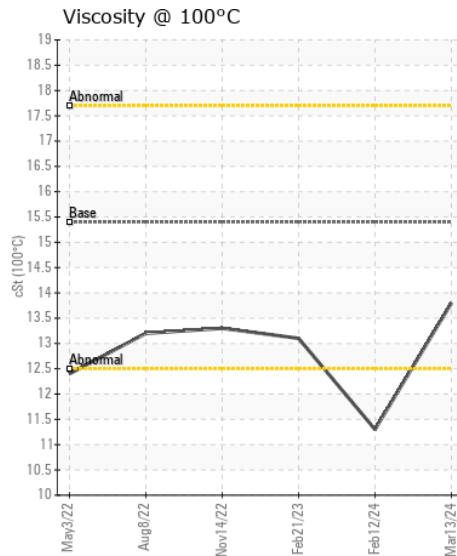
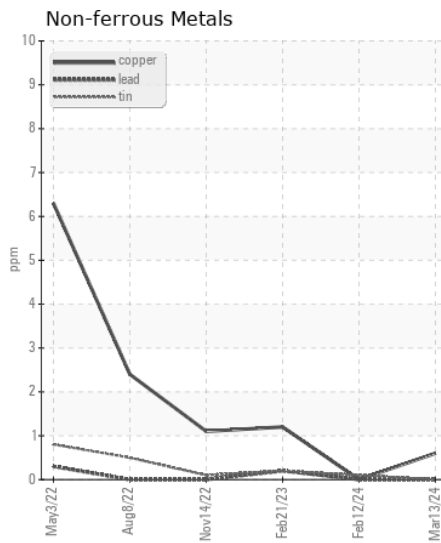
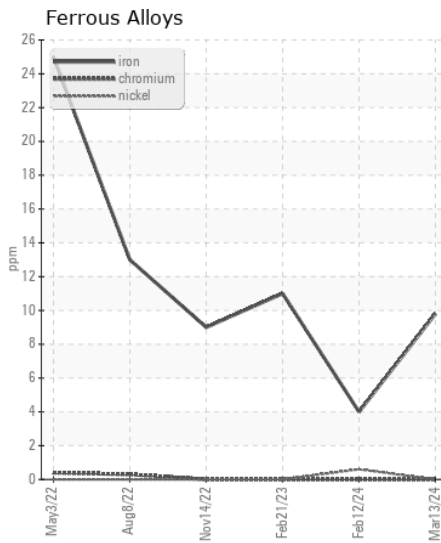
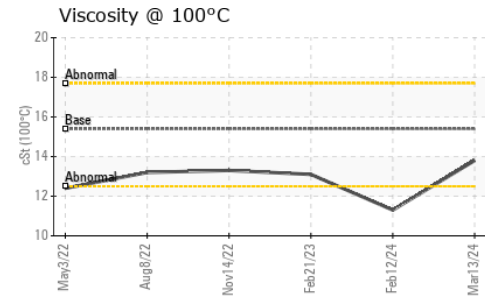
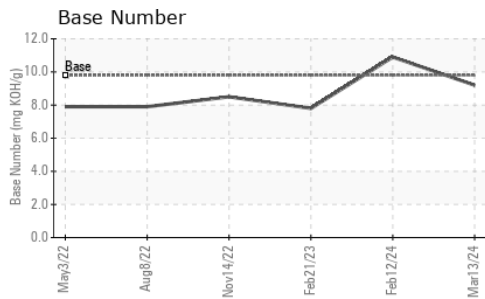
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	<b>4</b>	8	14
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	11
Fuel		WC Method	>5	<b>&lt;1.0</b>	0.3	<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>0.1</b>	0.1	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.6</b>	5.1	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.0</b>	22.1	20.2
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>	2	0
Boron	ppm	ASTM D5185m	0	<b>15</b>	62	2
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m	60	<b>55</b>	45	60
Manganese	ppm	ASTM D5185m	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	1010	<b>928</b>	543	886
Calcium	ppm	ASTM D5185m	1070	<b>1213</b>	1471	1107
Phosphorus	ppm	ASTM D5185m	1150	<b>1088</b>	1085	925
Zinc	ppm	ASTM D5185m	1270	<b>1279</b>	1265	1154
Sulfur	ppm	ASTM D5185m	2060	<b>3977</b>	3253	2908
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.0</b>	19.3	16.2
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>9.2</b>	10.9	7.8
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.8</b>	11.3	13.1



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0111955 **Received** : 19 Mar 2024  
**Lab Number** : 06122982 **Tested** : 20 Mar 2024  
**Unique Number** : 10937133 **Diagnosed** : 20 Mar 2024 - Wes Davis  
**Test Package** : FLEET

**GFL Environmental - 892 - Pauls Valley Hauling**  
 405 East Airport Industrial Road  
 Pauls Valley, OK  
 US 73075  
 Contact: Tony Graham  
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 T:  
 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)