



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

Machine Id  
**923040-260203**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

**RECOMMENDATION**

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0104815</b>	GFL0104888	GFL0104963
Sample Date		Client Info		<b>09 Apr 2024</b>	18 Mar 2024	13 Feb 2024
Machine Age	mls	Client Info		<b>21203</b>	18918	16529
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>MARGINAL</b>	NORMAL	NORMAL

**WEAR**

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	<b>42</b>	31	21
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	2	3
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>1</b>	<1	1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

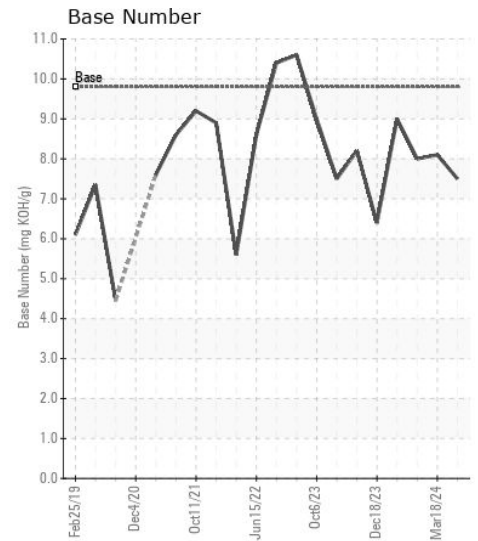
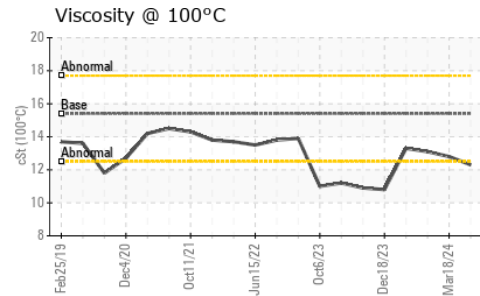
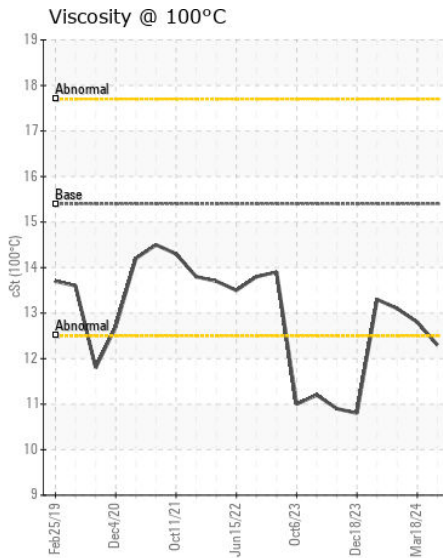
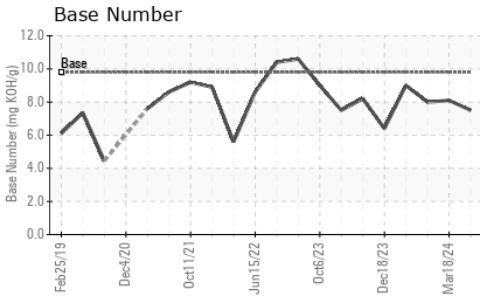
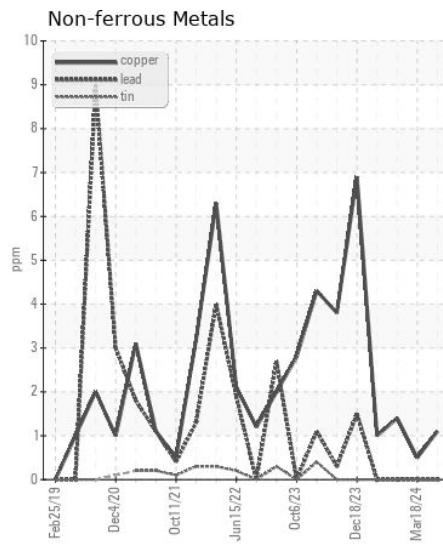
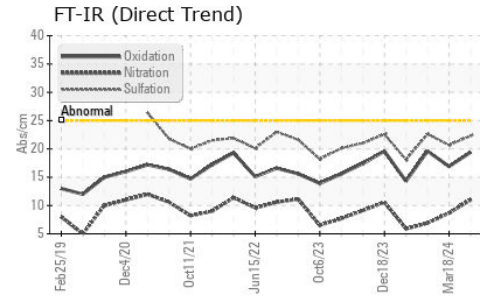
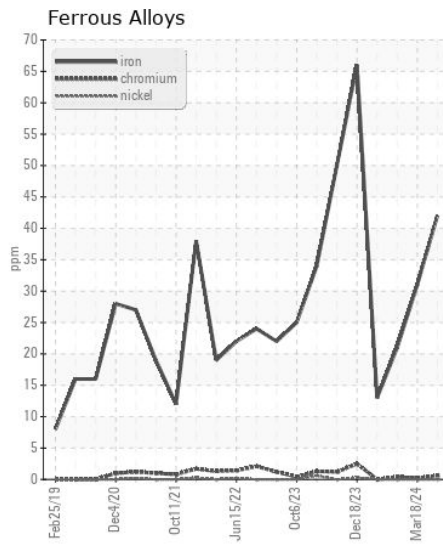
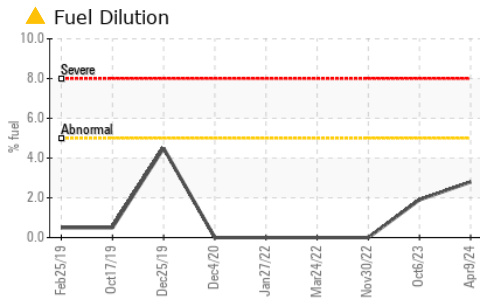
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>7</b>	6	6
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Fuel	%	ASTM D3524	>5	<b>▲ 2.8</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>1.1</b>	0.8	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.0</b>	8.7	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.3</b>	20.7	22.6
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>8</b>	5	6
Boron	ppm	ASTM D5185m	0	<b>0</b>	0	1
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>60</b>	60	58
Manganese	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	1010	<b>953</b>	989	918
Calcium	ppm	ASTM D5185m	1070	<b>1128</b>	1152	980
Phosphorus	ppm	ASTM D5185m	1150	<b>1057</b>	1088	1015
Zinc	ppm	ASTM D5185m	1270	<b>1303</b>	1335	1184
Sulfur	ppm	ASTM D5185m	2060	<b>3451</b>	3677	2899
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.4</b>	16.9	19.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>7.5</b>	8.1	8.0
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.3</b>	12.8	13.1



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0104815 **Received** : 24 Apr 2024  
**Lab Number** : 06158734 **Tested** : 26 Apr 2024  
**Unique Number** : 10994157 **Diagnosed** : 26 Apr 2024 - Wes Davis  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 820 - Joplin Hauling**  
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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)