



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



Machine Id  
**412011**  
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>GFL0085537</b>	GFL0044794	GFL0023438
Sample Date		Client Info		<b>16 Apr 2024</b>	20 Jan 2024	15 Nov 2023
Machine Age	hrs	Client Info		<b>4961</b>	4368	68638
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
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>12</b>	6	12
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>2</b>	1	1
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>6</b>	3	6
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	<1	<1
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**

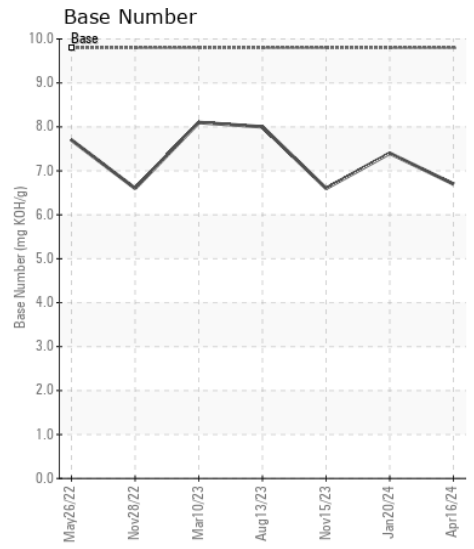
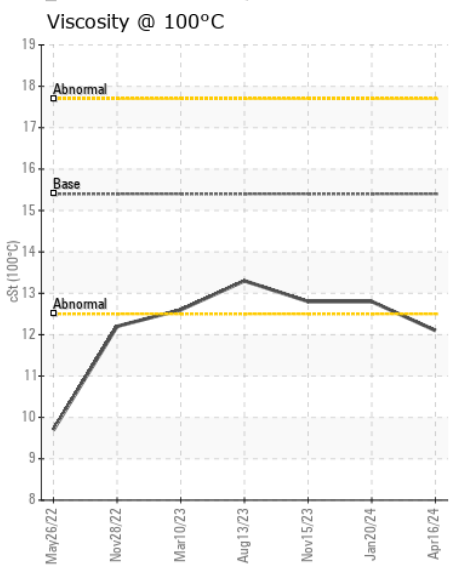
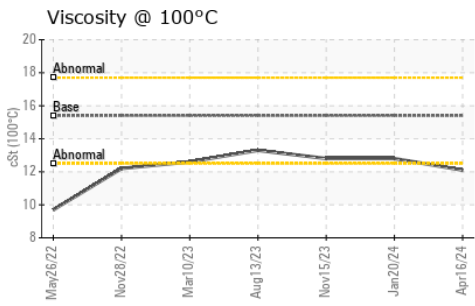
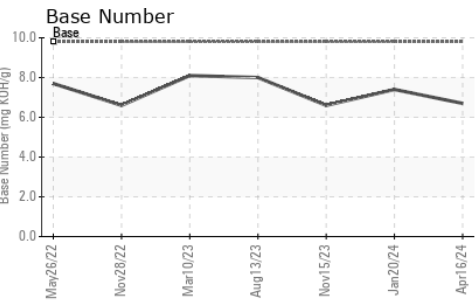
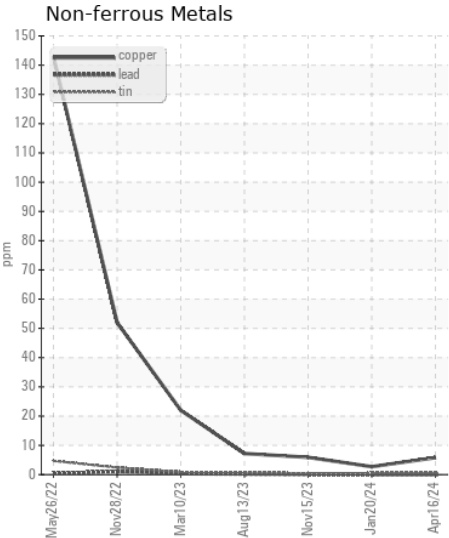
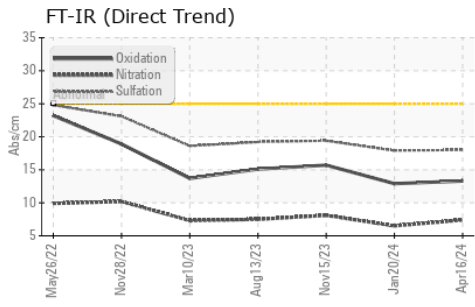
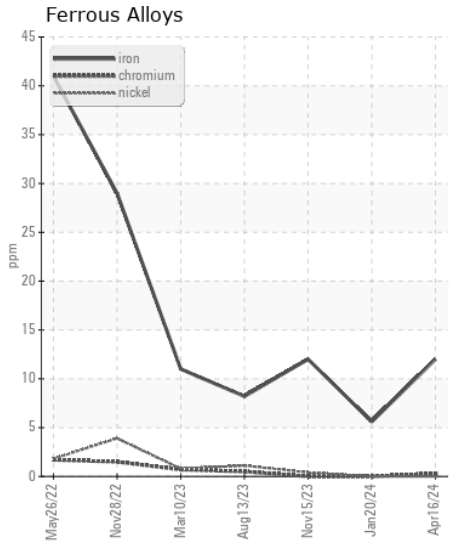
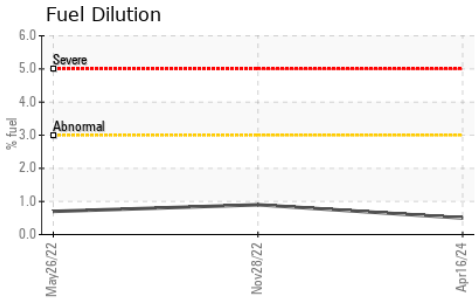
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>7</b>	3	7
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	2	6
Fuel	%	ASTM D3524	>3.0	<b>0.5</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>0.3</b>	0.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.4</b>	6.5	8.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.0</b>	17.9	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>2</b>	1	1
Boron	ppm	ASTM D5185m	0	<b>9</b>	3	2
Barium	ppm	ASTM D5185m	0	<b>1</b>	0	0
Molybdenum	ppm	ASTM D5185m	60	<b>53</b>	55	56
Manganese	ppm	ASTM D5185m	0	<b>1</b>	0	0
Magnesium	ppm	ASTM D5185m	1010	<b>819</b>	922	850
Calcium	ppm	ASTM D5185m	1070	<b>1042</b>	1044	1014
Phosphorus	ppm	ASTM D5185m	1150	<b>970</b>	1040	970
Zinc	ppm	ASTM D5185m	1270	<b>1141</b>	1231	1166
Sulfur	ppm	ASTM D5185m	2060	<b>3160</b>	3116	2863
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.3</b>	12.9	15.7
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	<b>6.7</b>	7.4	6.6
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.1</b>	12.8	12.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : GFL0085537 **Received** : 22 Apr 2024  
**Lab Number** : 06155751 **Tested** : 25 Apr 2024  
**Unique Number** : 10991174 **Diagnosed** : 25 Apr 2024 - Wes Davis  
**Test Package** : FLEET ( Additional Tests: FuelDilution, PercentFuel )

**GFL Environmental - 660S - Roanoke**  
 2045 LEE HWY  
 Cloverdale, VA  
 US 24077  
 Contact: DELBERT BEASLEY

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)

T:  
F: