



Machine Id  
**727009**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (--- GAL)**

### RECOMMENDATION

We advise that you check for the source of the coolant leak. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. The fluid was specified as PETRO CANADA DURON SHP 15W40, however, a fluid match indicates that this fluid is SAE 30 Diesel Engine Oil. Please confirm the oil type and grade on your next sample.

### WEAR

All component wear rates are normal.

### CONTAMINATION

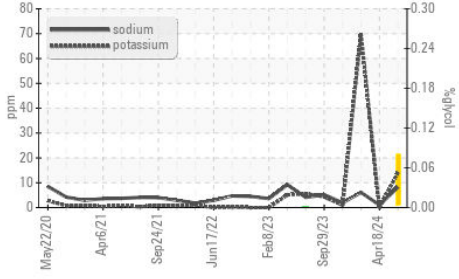
Test for glycol is positive. Light fuel dilution occurring. There is a moderate concentration of glycol present in the oil. No other contaminants were detected in the oil.

### FLUID CONDITION

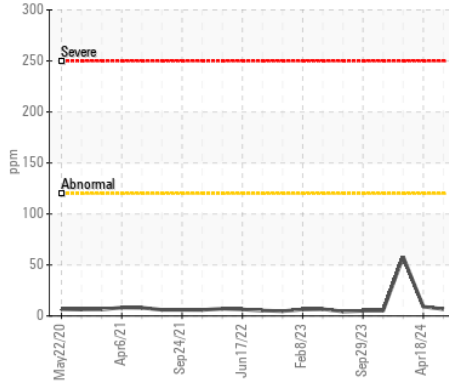
This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0113205</b>	GFL0113246	GFL0097314
Sample Date		Client Info		<b>18 Jun 2024</b>	18 Apr 2024	11 Jan 2024
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>18416</b>	40759	17390
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185(m)	>120	<b>7</b>	9	58
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	2
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	1	24
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	0	5
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	<1	20
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	0	3
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	<1	▲ 43
Potassium	ppm	ASTM D5185(m)	>20	▲ <b>14</b>	0	70
Fuel	%	ASTM D7593*	>3.0	<b>2.4</b>	<1.0	1.1
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	ASTM D7922*		▲ <b>0.08</b>	NEG	NEG
Soot %	%	ASTM D7844*	>4	<b>0.2</b>	1.7	0.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.2</b>	7.1	9.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>23.6</b>	20.9	22.6
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>VLITE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG
Sodium	ppm	ASTM D5185(m)		<b>8</b>	1	6
Boron	ppm	ASTM D5185(m)	0	<b>87</b>	8	33
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	5
Molybdenum	ppm	ASTM D5185(m)	60	<b>6</b>	53	13
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	6
Magnesium	ppm	ASTM D5185(m)	1010	<b>69</b>	845	731
Calcium	ppm	ASTM D5185(m)	1070	<b>2000</b>	1020	1298
Phosphorus	ppm	ASTM D5185(m)	1150	<b>849</b>	885	693
Zinc	ppm	ASTM D5185(m)	1270	<b>1034</b>	1037	761
Sulfur	ppm	ASTM D5185(m)	2060	<b>2613</b>	2291	2411
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>18.8</b>	13.6	19.1
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ <b>11.4</b>	13.3	▲ 11.4

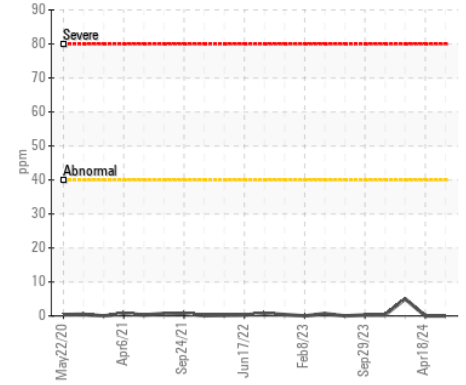
**▲ Glycol Contamination**



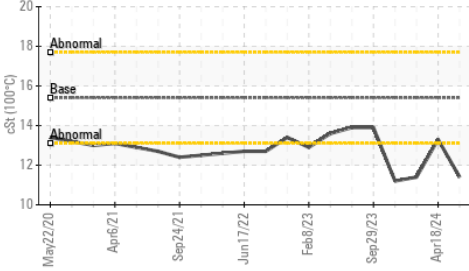
**Iron (ppm)**



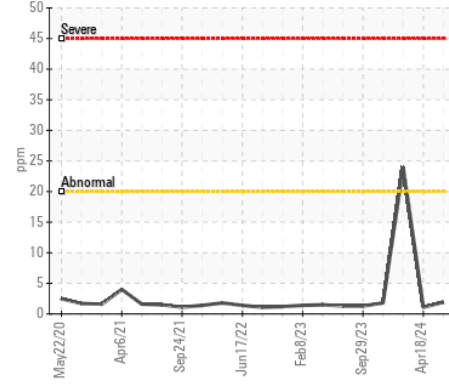
**Lead (ppm)**



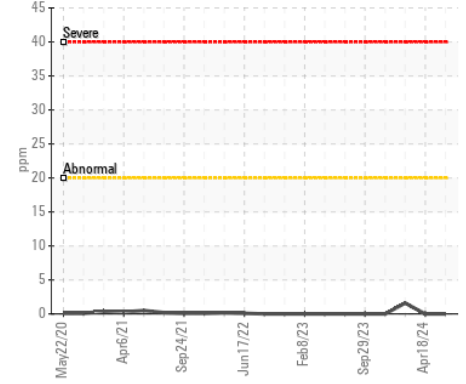
**▲ Viscosity @ 100°C**



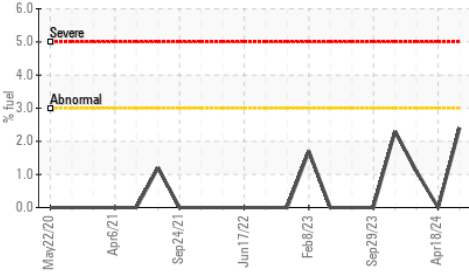
**Aluminum (ppm)**



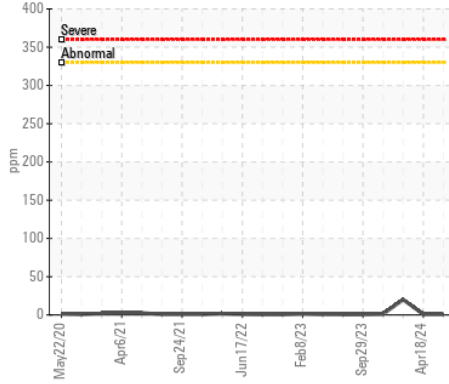
**Chromium (ppm)**



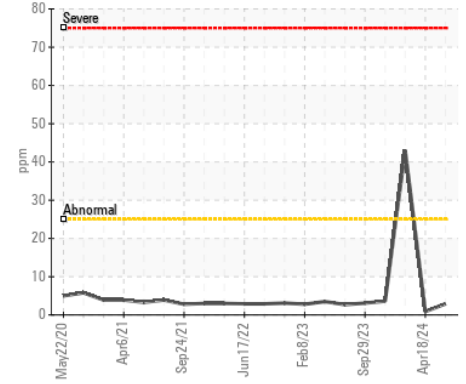
**Fuel Dilution**



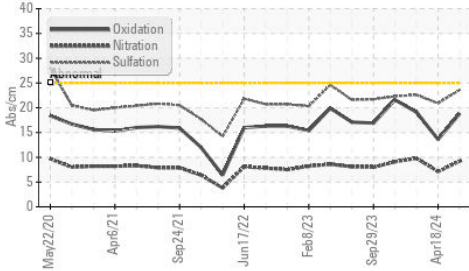
**Copper (ppm)**



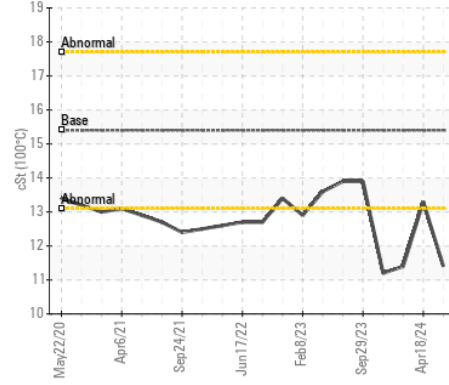
**Silicon (ppm)**



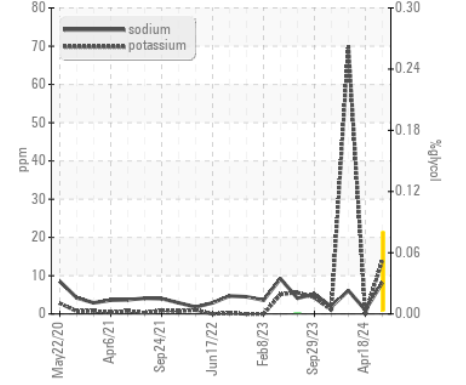
**FT-IR (Direct Trend)**



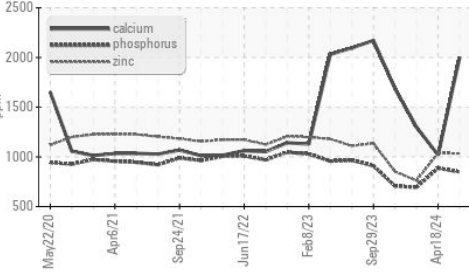
**▲ Viscosity @ 100°C**



**▲ Glycol Contamination**



**Additives**



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0113205  
**Lab Number** : 02643181  
**Unique Number** : 5800720  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, Glycol, PercentFuel, Visual )

**GFL Environmental - 246 - Windsor**  
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 F:

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.