



Machine Id  
**7776**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON SHP 15W40 (40 LTR)**

**RECOMMENDATION**

Check for low coolant level. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. No other corrective action is recommended at this time.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0113182</b>	GFL0104502	GFL0089073
Sample Date		Client Info		<b>23 Feb 2024</b>	04 Dec 2023	30 Aug 2023
Machine Age	kms	Client Info		<b>165979</b>	162607	158442
Oil Age	kms	Client Info		<b>0</b>	0	0
Filter Age	kms	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>ATTENTION</b>	NORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>165	<b>13</b>	4	8
Chromium	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	1	<1
Lead	ppm	ASTM D5185(m)	>150	<b>5</b>	0	0
Copper	ppm	ASTM D5185(m)	>90	<b>1</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

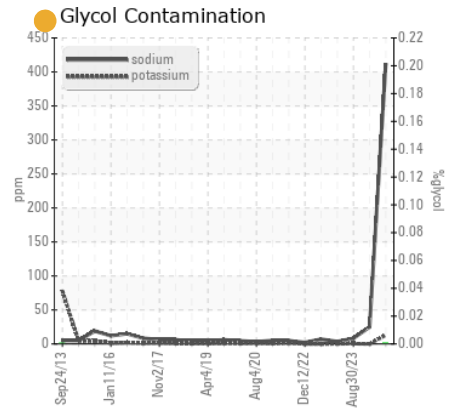
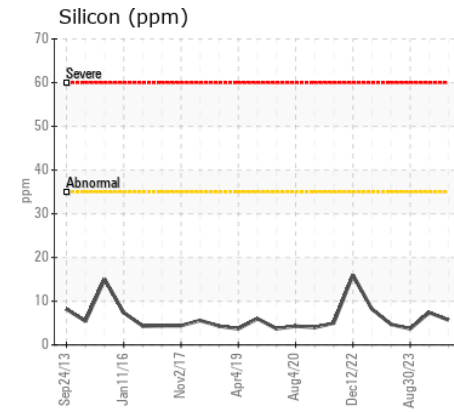
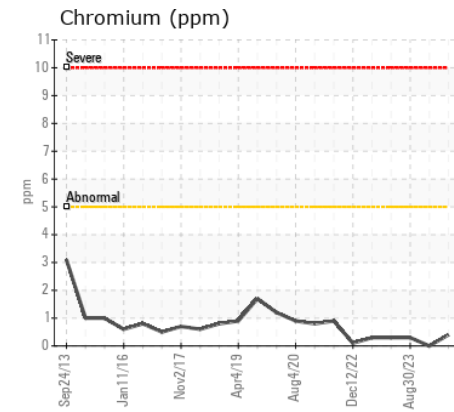
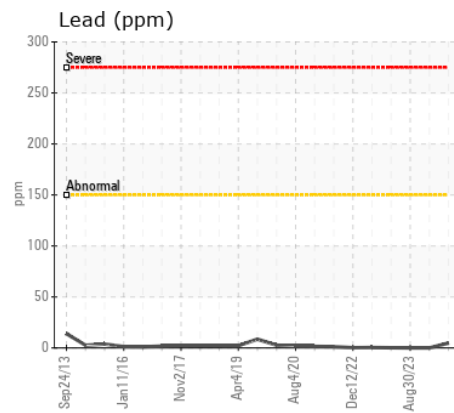
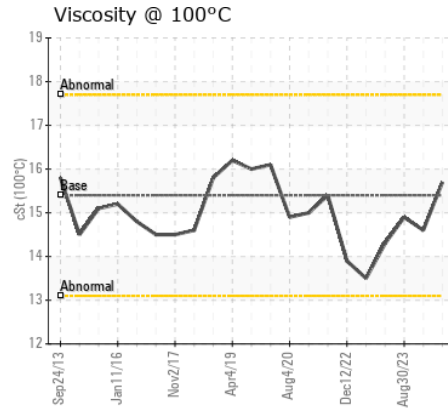
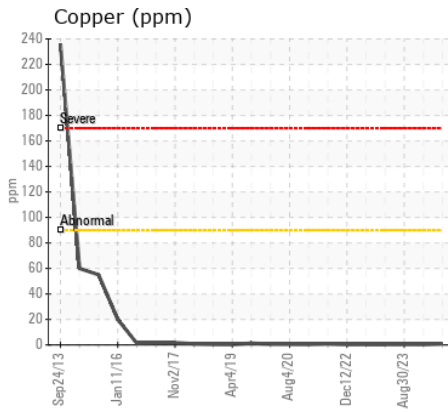
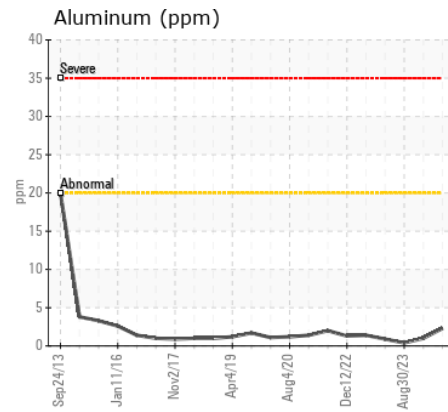
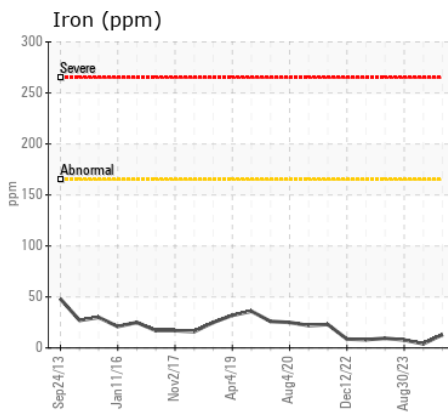
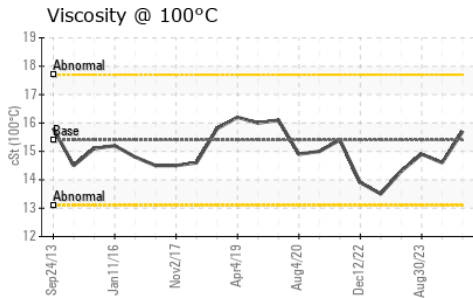
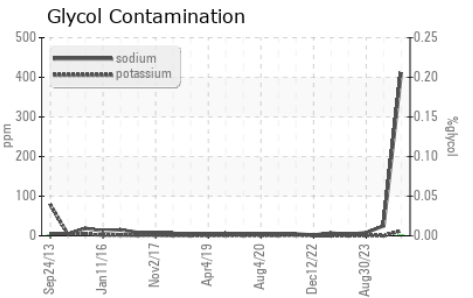
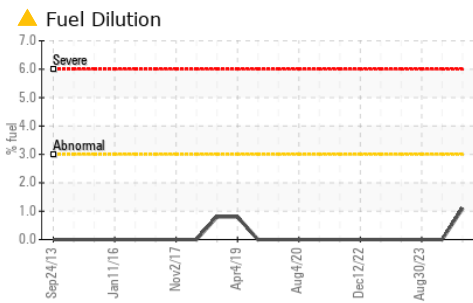
Light fuel dilution occurring. Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>35	<b>6</b>	7	4
Potassium	ppm	ASTM D5185(m)	>20	<b>13</b>	0	<1
Fuel	%	ASTM D7593*	>3.0	<b>▲ 1.1</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	ASTM D7922*		<b>0.0</b>	NEG	NEG
Soot %	%	ASTM D7844*	>7.5	<b>3</b>	0.8	1.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>11.1</b>	5.5	7.2
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>25.7</b>	19.3	22.0
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

The condition of the oil is acceptable for the time in service (see recommendation).

Sodium	ppm	ASTM D5185(m)		<b>● 412</b>	25	8
Boron	ppm	ASTM D5185(m)	0	<b>4</b>	7	5
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	60	<b>59</b>	58	56
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	1010	<b>881</b>	938	895
Calcium	ppm	ASTM D5185(m)	1070	<b>973</b>	1020	1061
Phosphorus	ppm	ASTM D5185(m)	1150	<b>953</b>	952	980
Zinc	ppm	ASTM D5185(m)	1270	<b>1099</b>	1145	1121
Sulfur	ppm	ASTM D5185(m)	2060	<b>2586</b>	2549	2454
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>16.1</b>	12.9	14.0
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	<b>15.7</b>	14.6	14.9



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0113182  
**Lab Number** : 02618580  
**Unique Number** : 5735690  
**Test Package** : MOB 1 ( Additional Tests: FUELDILUTION, Glycol, PercentFuel )  
**Received** : 28 Feb 2024  
**Tested** : 01 Mar 2024  
**Diagnosed** : 01 Mar 2024 - Kevin Marson  
 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.

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