

Machine Id  
**9132**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)**

**RECOMMENDATION**

Check for low coolant level. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0117302</b>	GFL0112406	GFL0099591
Sample Date		Client Info		<b>11 Apr 2024</b>	08 Feb 2024	04 Dec 2023
Machine Age	kms	Client Info		<b>505957</b>	12515	489174
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>N/A</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	SEVERE	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>75	<b>37</b>	65	57
Chromium	ppm	ASTM D5185(m)	>5	<b>1</b>	2	2
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	1	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)	>15	<b>9</b>	13	9
Lead	ppm	ASTM D5185(m)	>25	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>100	<b>&lt;1</b>	1	2
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

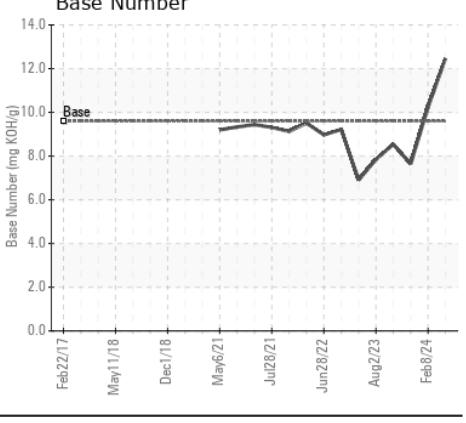
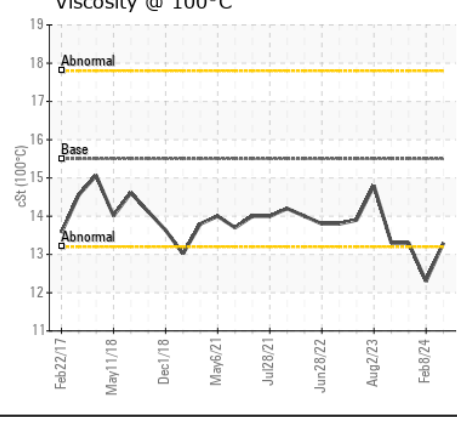
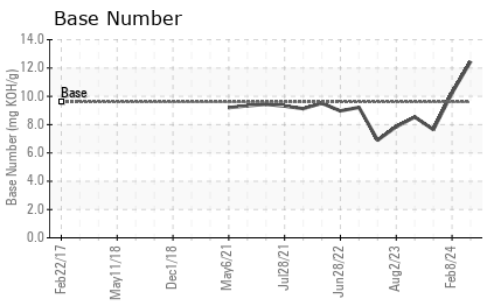
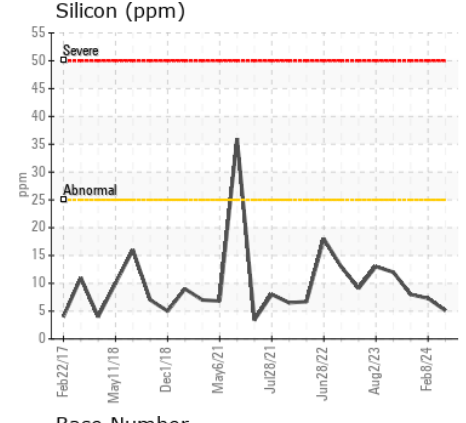
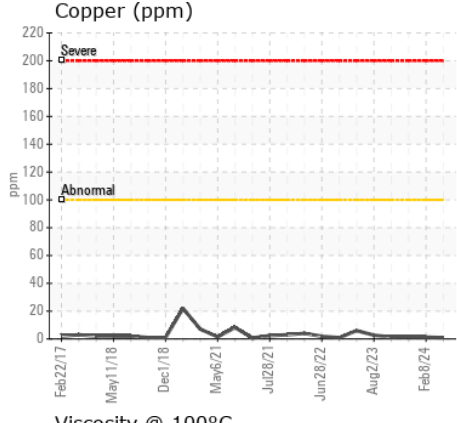
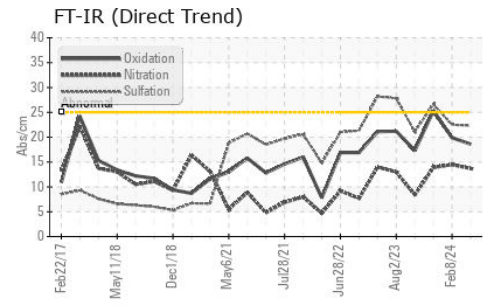
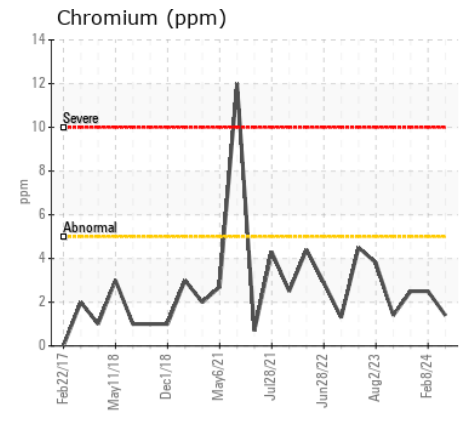
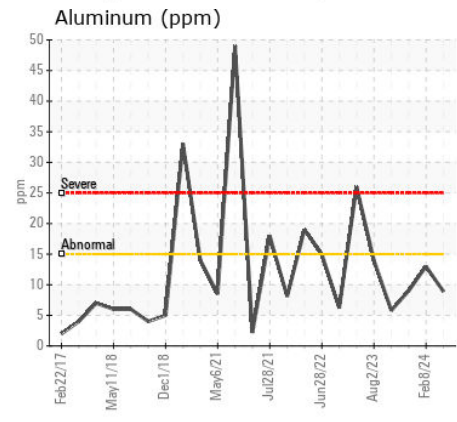
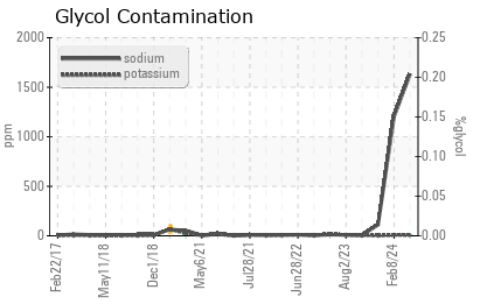
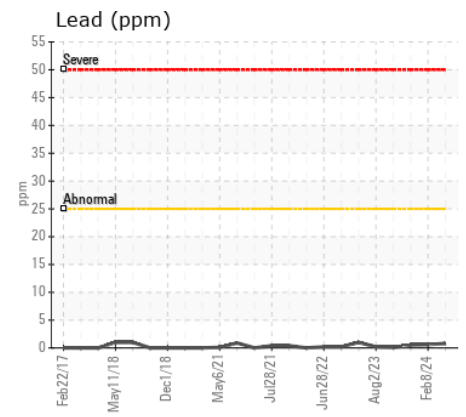
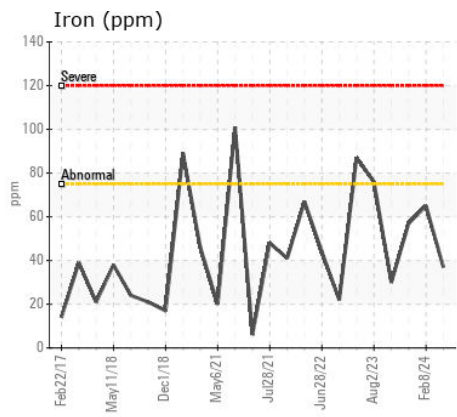
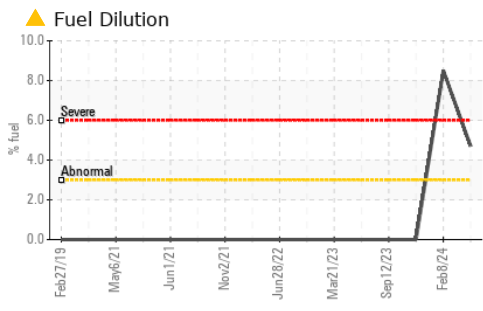
There is a moderate amount of fuel present in the oil. Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>5</b>	7	8
Potassium	ppm	ASTM D5185(m)	>20	<b>7</b>	8	3
Fuel	%	ASTM D7593*	>3.0	<b>▲ 4.7</b>	▲ 8.5	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	ASTM D7922*		<b>0.0</b>	0.0	0.0
Soot %	%	ASTM D7844*	>6	<b>0.8</b>	1	2.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>13.7</b>	14.5	13.9
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>22.3</b>	22.5	26.6
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 oil is no longer serviceable due to the presence of contaminants. The condition of the oil is acceptable for the time in service (see recommendation).

Sodium	ppm	ASTM D5185(m)		<b>● 1632</b>	● 1201	111
Boron	ppm	ASTM D5185(m)	1	<b>5</b>	2	2
Barium	ppm	ASTM D5185(m)	1	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	<b>132</b>	104	59
Manganese	ppm	ASTM D5185(m)	1	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185(m)	1010	<b>859</b>	776	869
Calcium	ppm	ASTM D5185(m)	1070	<b>965</b>	922	966
Phosphorus	ppm	ASTM D5185(m)	1150	<b>850</b>	812	882
Zinc	ppm	ASTM D5185(m)	1270	<b>1054</b>	997	1090
Sulfur	ppm	ASTM D5185(m)	2060	<b>2431</b>	2394	2231
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>18.6</b>	19.9	25.3
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	<b>12.46</b>	10.23	7.64
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	<b>13.3</b>	▲ 12.3	13.3



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0117302 **Received** : 16 Apr 2024  
**Lab Number** : 02629138 **Tested** : 17 Apr 2024  
**Unique Number** : 5762270 **Diagnosed** : 18 Apr 2024 - Kevin Marson  
**Test Package** : MOB 2 ( Additional Tests: Glycol, PercentFuel )

**GFL Environmental - 550 - Rocky View County**  
 220 Carmek Blvd  
 Rocky View County, AB  
 CA T1X 1X1  
 Contact: GFL Calgary  
 calgarymaintenance@gflenv.com  
 T:  
 F: (403)369-6163

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.