

Machine Id  
**CR262**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON UHP 5W40 (--- GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PC0088282</b>	PC0078516	PC0072903
Sample Date		Client Info		<b>18 May 2024</b>	14 Aug 2023	09 Mar 2023
Machine Age	hrs	Client Info		<b>2948</b>	1704	1175
Oil Age	hrs	Client Info		<b>0</b>	500	500
Filter Age	hrs	Client Info		<b>0</b>	500	500
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 D5185(m)	>100	<b>13</b>	9	9
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>2</b>	2	2
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	10	1
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

**CONTAMINATION**

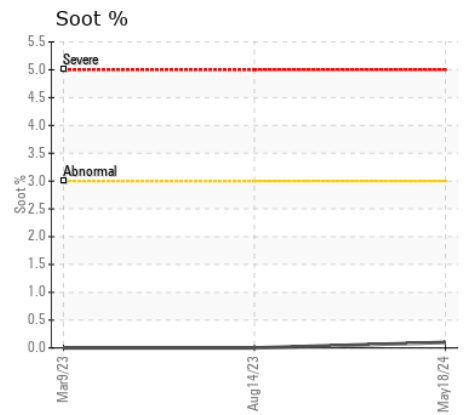
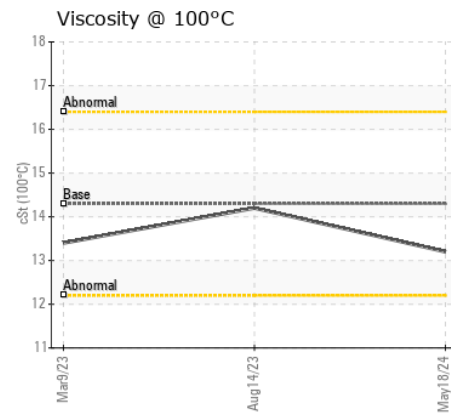
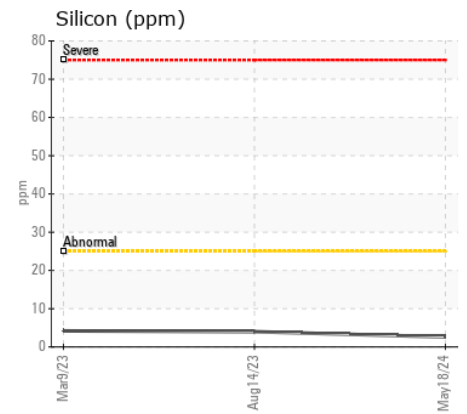
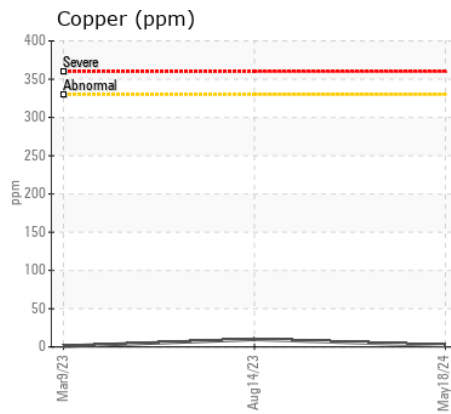
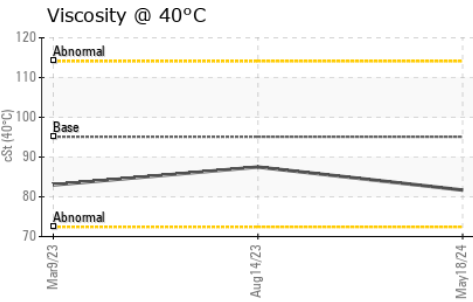
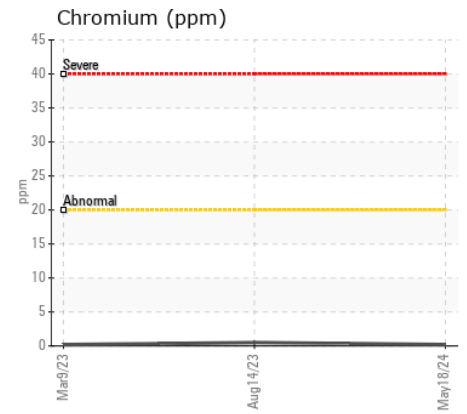
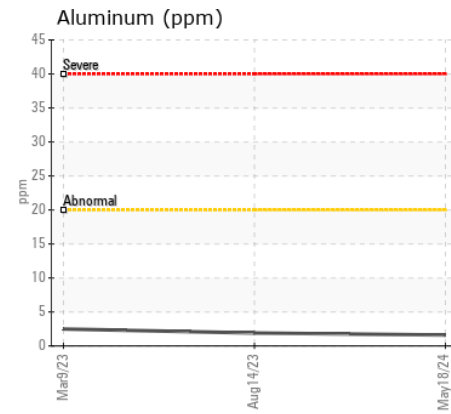
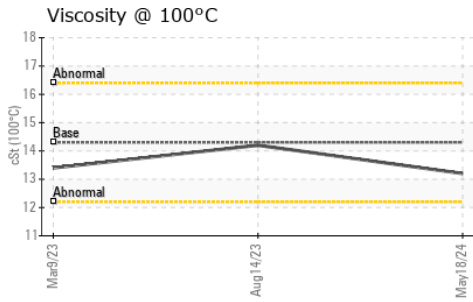
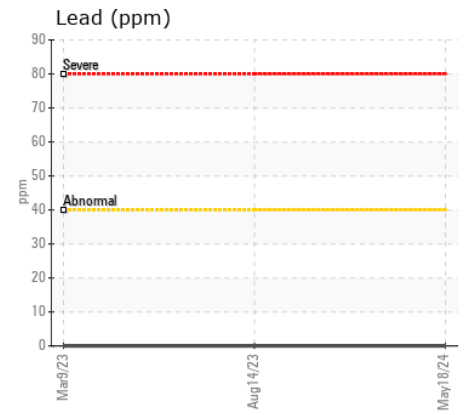
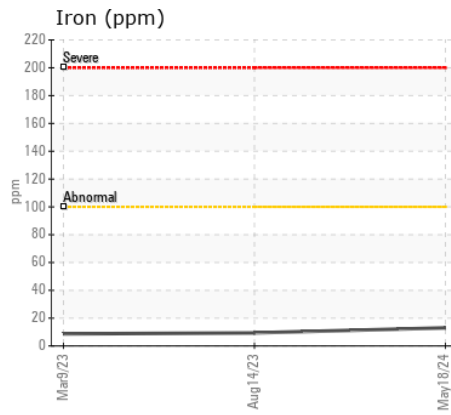
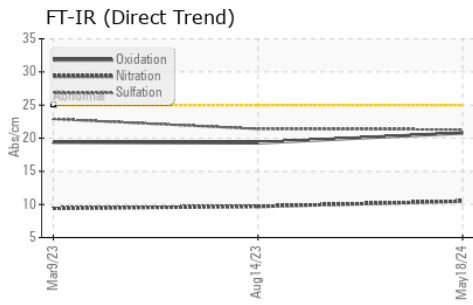
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	4	4
Potassium	ppm	ASTM D5185(m)	>20	<b>5</b>	6	5
Fuel		WC Method	>5	<b>&lt;1.0</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>0.1</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.5</b>	9.7	9.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>21.3</b>	21.4	22.9
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.

Sodium	ppm	ASTM D5185(m)		<b>7</b>	7	5
Boron	ppm	ASTM D5185(m)	65	<b>36</b>	32	46
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	65	<b>54</b>	59	59
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	1160	<b>1081</b>	1102	1103
Calcium	ppm	ASTM D5185(m)	820	<b>806</b>	827	856
Phosphorus	ppm	ASTM D5185(m)	1160	<b>985</b>	1030	1091
Zinc	ppm	ASTM D5185(m)	1260	<b>1176</b>	1172	1199
Sulfur	ppm	ASTM D5185(m)	3000	<b>2672</b>	2750	2893
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>20.8</b>	19.3	19.4
Visc @ 40°C	cSt	ASTM D7279(m)	95.1	<b>81.7</b>	87.5	83.0
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	<b>13.2</b>	14.2	13.4
Viscosity Index (VI)	Scale	ASTM D2270*	169	<b>163</b>	168	164



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0088282  
**Lab Number** : 02637904  
**Unique Number** : 5787066  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI )

Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations  
 151 Ram Forest Rd,  
 Stouffville, ON  
 CA L4A 2G8  
 Contact: Bill Acton  
 bacton@gipi.com

*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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