



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**DR193**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON UHP 5W40 (--- LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PC0071594</b>	PC0082663	PC0082053
Sample Date		Client Info		<b>12 Apr 2024</b>	05 Feb 2024	27 Jan 2024
Machine Age	hrs	Client Info		<b>778</b>	515	468
Oil Age	hrs	Client Info		<b>0</b>	0	250
Filter Age	hrs	Client Info		<b>0</b>	0	250
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	MARGINAL

**WEAR**

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185(m)	>100	<b>6</b>	12	13
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>4	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>1</b>	4	3
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	2	2
Copper	ppm	ASTM D5185(m)	>330	<b>3</b>	8	8
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	2	3
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	VLITE	NONE

**CONTAMINATION**

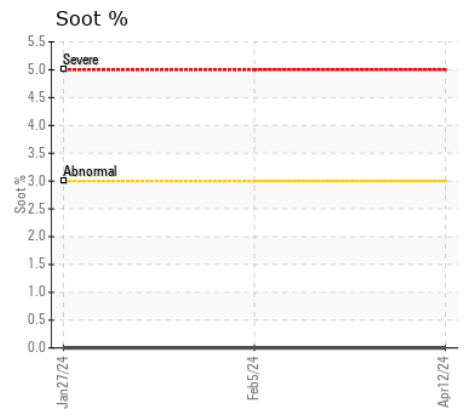
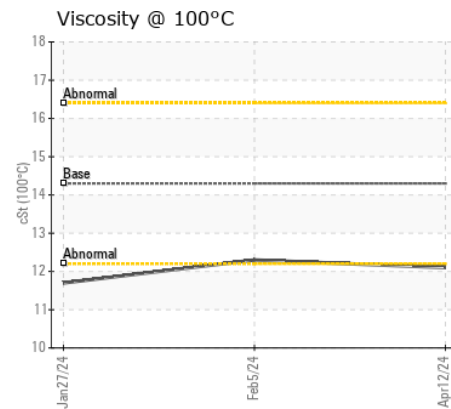
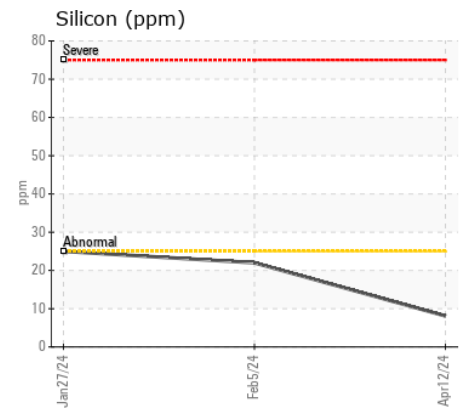
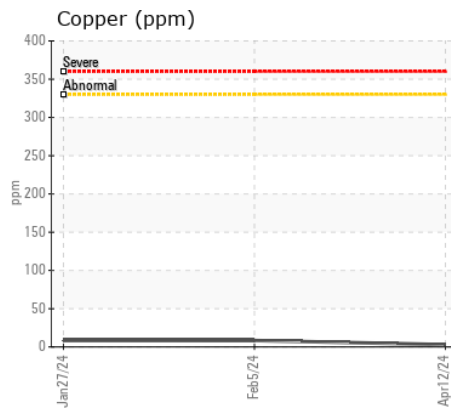
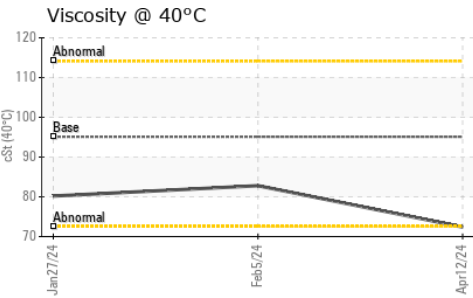
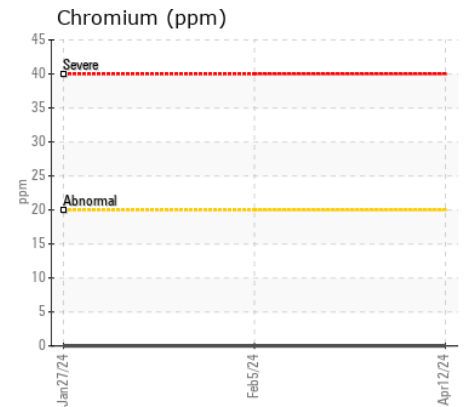
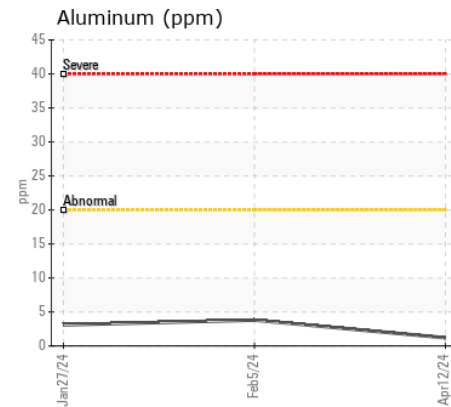
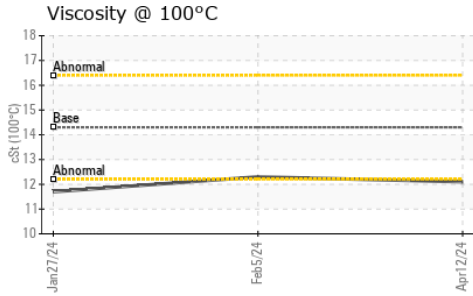
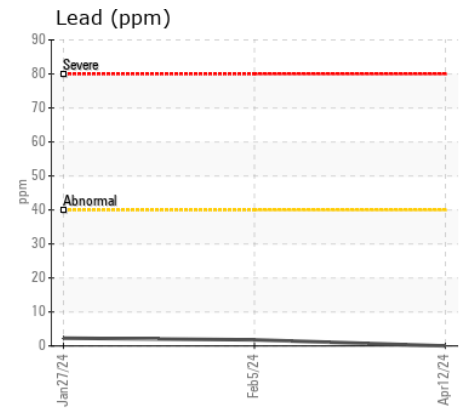
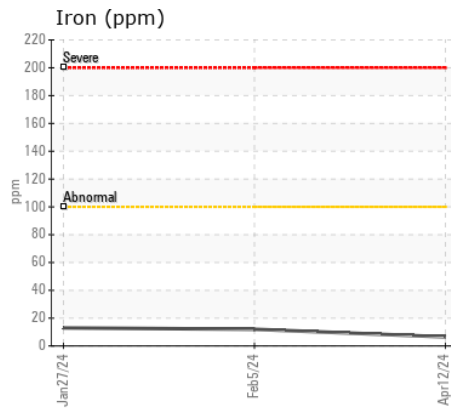
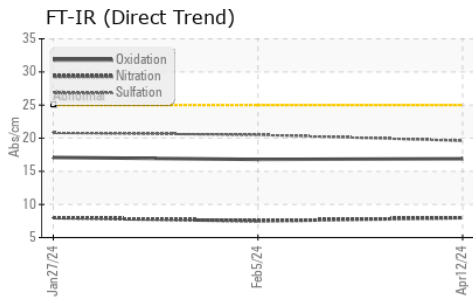
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>8</b>	22	25
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	2	2
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	▲ 2.9
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.0</b>	7.5	8.0
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>19.6</b>	20.5	20.8
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 condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>3</b>	3	3
Boron	ppm	ASTM D5185(m)	65	<b>46</b>	70	71
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	65	<b>53</b>	62	62
Manganese	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	1160	<b>943</b>	542	445
Calcium	ppm	ASTM D5185(m)	820	<b>893</b>	1546	1663
Phosphorus	ppm	ASTM D5185(m)	1160	<b>903</b>	976	969
Zinc	ppm	ASTM D5185(m)	1260	<b>1079</b>	1164	1138
Sulfur	ppm	ASTM D5185(m)	3000	<b>2496</b>	2974	2870
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>16.9</b>	16.8	17.1
Visc @ 40°C	cSt	ASTM D7279(m)	95.1	<b>72.4</b>	82.8	80.2
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	<b>12.1</b>	12.3	11.7
Viscosity Index (VI)	Scale	ASTM D2270*	169	<b>164</b>	144	138



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0071594  
**Lab Number** : 02630917  
**Unique Number** : 5772070  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI, Visual )

Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations  
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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.