



Machine Id  
**RST9963**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON UHP 5W40 (8 LTR)**

**RECOMMENDATION**

We advise that you check the fuel injection system. 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.

**WEAR**

All component wear rates are normal.

**CONTAMINATION**

There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

**FLUID CONDITION**

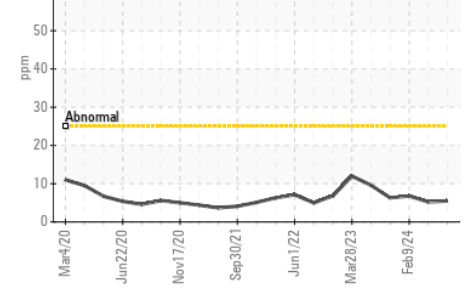
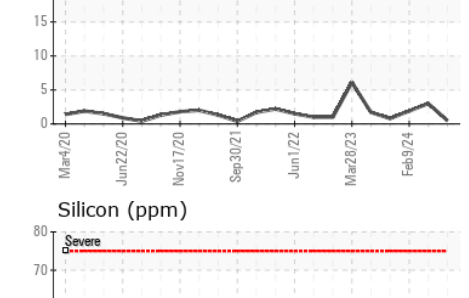
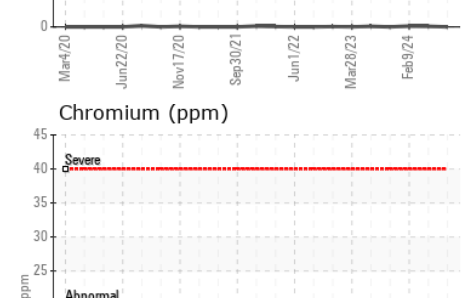
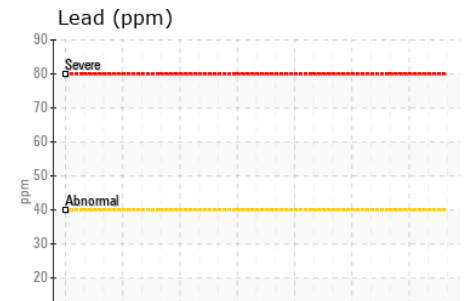
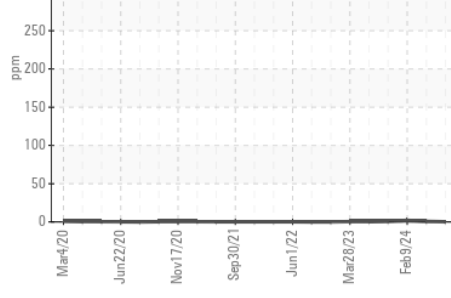
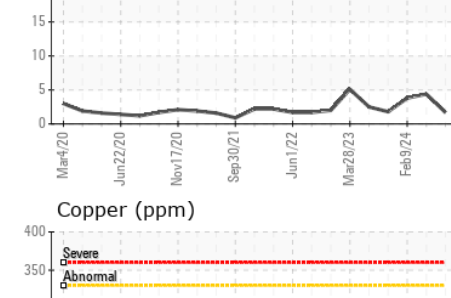
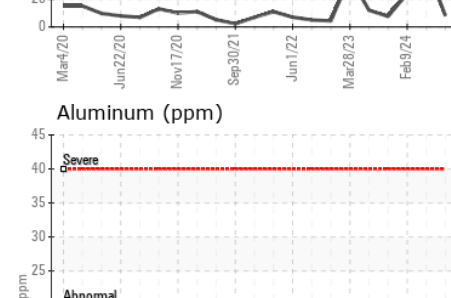
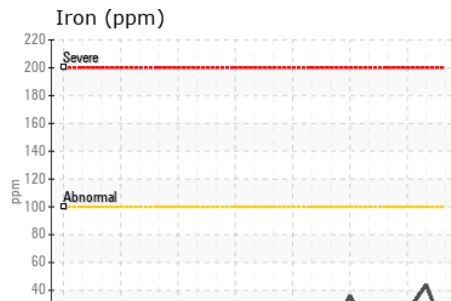
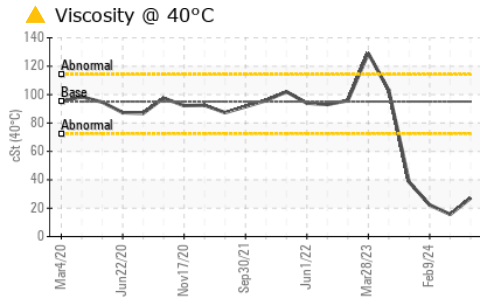
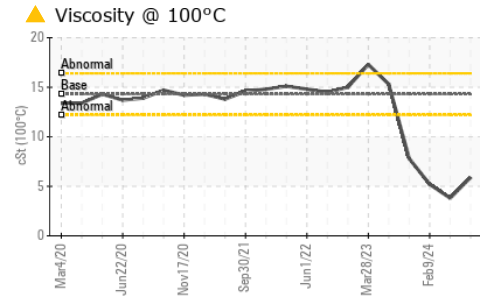
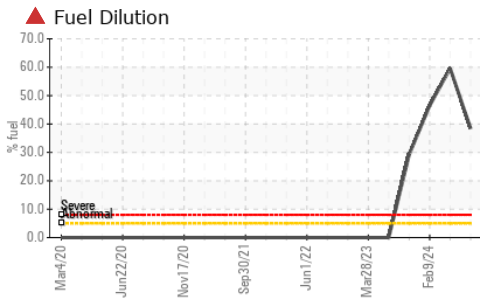
Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PC0078315</b>	PC0078317	PC0078299
Sample Date		Client Info		<b>22 Feb 2024</b>	14 Feb 2024	09 Feb 2024
Machine Age	hrs	Client Info		<b>6300</b>	6249	9963
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	Not Changd
Filter Changed		Client Info		<b>N/A</b>	N/A	Not Changd
Sample Status				<b>SEVERE</b>	SEVERE	SEVERE

Iron	ppm	ASTM D5185(m)	>100	<b>8</b>	44	24
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	3	2
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	0	<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>2</b>	4	4
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	<1	2
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0

Silicon	ppm	ASTM D5185(m)	>25	<b>6</b>	5	7
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Fuel	%	ASTM D7593*	>5	<b>▲ 38.4</b>	▲ 59.6	▲ 46.5
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>	0.1	0.1
Nitration	Abs/cm	ASTM D7624*	>20	<b>7.6</b>	9.0	8.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>16.8</b>	17.1	17.9
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

Sodium	ppm	ASTM D5185(m)		<b>2</b>	2	2
Boron	ppm	ASTM D5185(m)	65	<b>27</b>	17	24
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	65	<b>29</b>	23	30
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	1160	<b>574</b>	450	564
Calcium	ppm	ASTM D5185(m)	820	<b>439</b>	334	415
Phosphorus	ppm	ASTM D5185(m)	1160	<b>536</b>	394	510
Zinc	ppm	ASTM D5185(m)	1260	<b>609</b>	473	605
Sulfur	ppm	ASTM D5185(m)	3000	<b>1529</b>	1009	1409
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>13.0</b>	15.3	15.4
Visc @ 40°C	cSt	ASTM D7279(m)	95.1	<b>▲ 27.1</b>	▲ 15.6	▲ 22.3
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	<b>▲ 5.9</b>	▲ 3.8	▲ 5.2
Viscosity Index (VI)	Scale	ASTM D2270*	169	<b>171</b>	138	176



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0078315  
**Lab Number** : 02619159  
**Unique Number** : 5736269  
**Test Package** : MOB 1 ( Additional Tests: KV40, PercentFuel, VI )

**Received** : 01 Mar 2024  
**Tested** : 04 Mar 2024  
**Diagnosed** : 04 Mar 2024 - Wes Davis

Green Infrastructure and Partners Inc (GIPI) - 286 - Shoring & Foundations  
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 Stouffville, ON  
 CA L4A 2G8  
 Contact: Shannon Abbott  
 sabbott@gipi.com  
 T: (905)750-5900  
 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.