

Machine Id  
**OE1025**  
Component  
**Diesel Engine**  
Fluid  
**PETRO CANADA DURON UHP 5W40 (--- GAL)**

**RECOMMENDATION**

Confirm the source of the lubricant being utilized for top-up/fill.  
Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PC0082220</b>	PC0058977	PC0042238
Sample Date		Client Info		<b>23 Feb 2024</b>	24 Mar 2022	13 Jan 2021
Machine Age	hrs	Client Info		<b>1506</b>	1211	715
Oil Age	hrs	Client Info		<b>0</b>	500	0
Filter Age	hrs	Client Info		<b>0</b>	500	0
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>4</b>	6	15
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>3</b>	3	5
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	0	<1
Copper	ppm	ASTM D5185(m)	>330	<b>&lt;1</b>	<1	4
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

**CONTAMINATION**

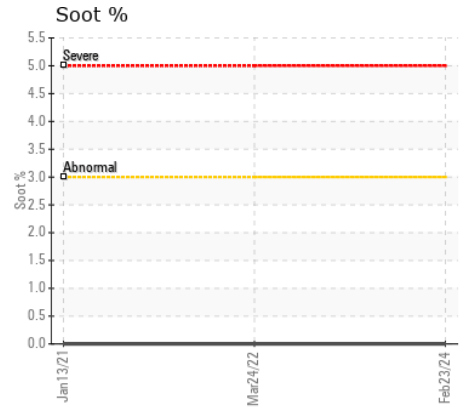
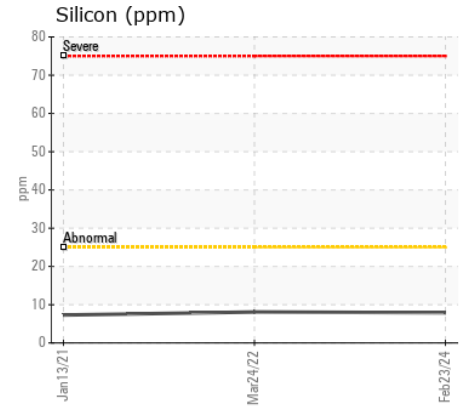
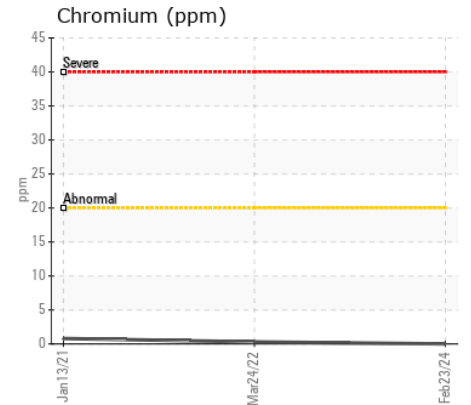
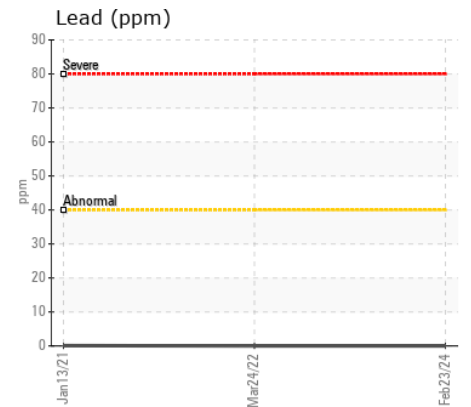
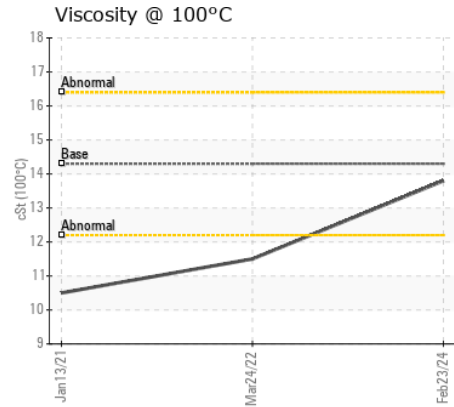
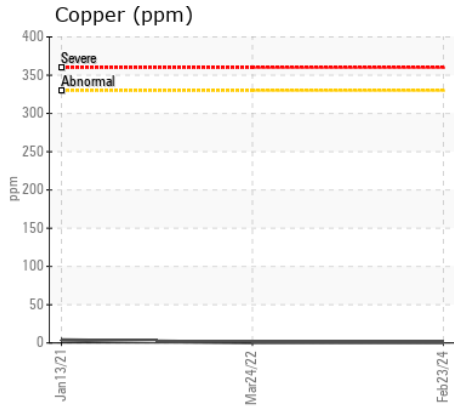
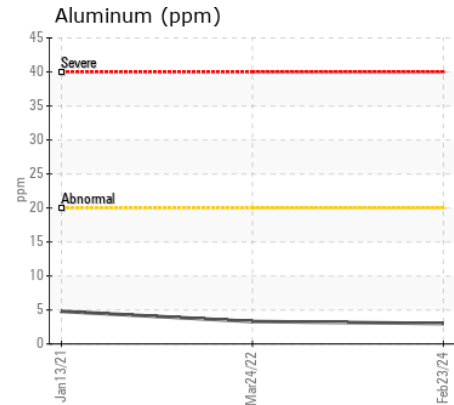
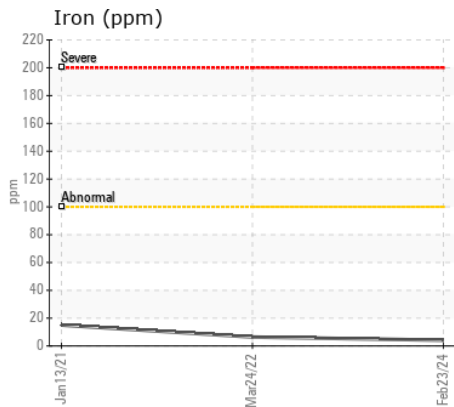
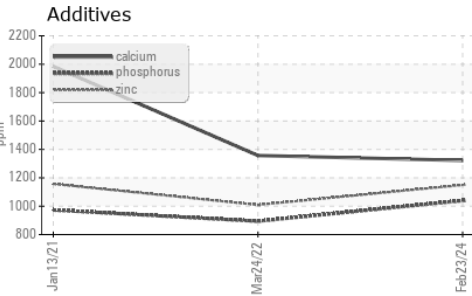
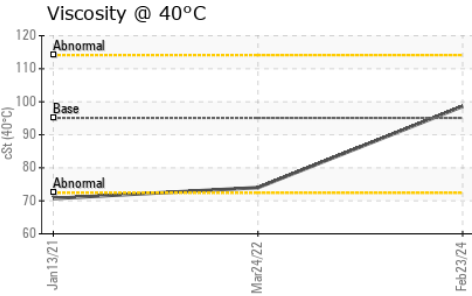
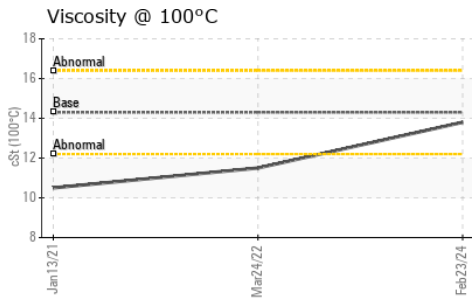
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>8</b>	8	7
Potassium	ppm	ASTM D5185(m)	>20	<b>1</b>	2	8
Fuel		WC Method	>5	<b>&lt;1.0</b>	1.1	0.4
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	0.0
Soot %	%	ASTM D7844*	>3	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>5.0</b>	7.4	9.4
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>19.3</b>	22.3	18.8
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	---
Emulsified Water	scalar	Visual*	>0.2	<b>NEG</b>	NEG	NEG

**FLUID CONDITION**

Additive levels indicate the addition of a different brand, or type of oil.  
The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<b>1</b>	2	4
Boron	ppm	ASTM D5185(m)	65	<b>373</b>	305	43
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185(m)	65	<b>83</b>	105	75
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	1160	<b>406</b>	606	104
Calcium	ppm	ASTM D5185(m)	820	<b>1322</b>	1357	1985
Phosphorus	ppm	ASTM D5185(m)	1160	<b>1039</b>	894	973
Zinc	ppm	ASTM D5185(m)	1260	<b>1149</b>	1009	1157
Sulfur	ppm	ASTM D5185(m)	3000	<b>2938</b>	2560	3290
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>13.7</b>	16.6	14.6
Visc @ 40°C	cSt	ASTM D7279(m)	95.1	<b>98.6</b>	74.0	70.7
Visc @ 100°C	cSt	ASTM D7279(m)	14.3	<b>13.8</b>	11.5	10.5
Viscosity Index (VI)	Scale	ASTM D2270*	169	<b>141</b>	148	135



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0082220 **Received** : 01 Mar 2024  
**Lab Number** : 02619151 **Tested** : 01 Mar 2024  
**Unique Number** : 5736261 **Diagnosed** : 01 Mar 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI, Visual )

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.

T:  
F: