



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Machine Id  
**14169**

Component  
**Front Diesel Engine**

Fluid  
**CASTROL HYPURON ADVANCED FORMULA (40 LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>PC0071264</b>	PC0071883	PC0071880
Sample Date		Client Info		<b>28 Apr 2024</b>	09 Nov 2023	28 Aug 2023
Machine Age	hrs	Client Info		<b>0</b>	0	0
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	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>120	<b>11</b>	21	33
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>5	<b>&lt;1</b>	2	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>13</b>	13	▲ 24
Lead	ppm	ASTM D5185(m)	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185(m)	>330	<b>2</b>	22	4
Tin	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>VLITE</b>	NONE	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	---

**CONTAMINATION**

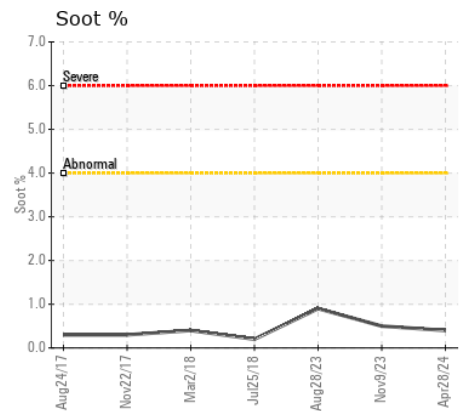
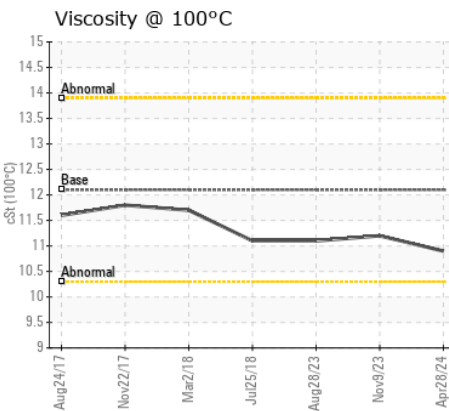
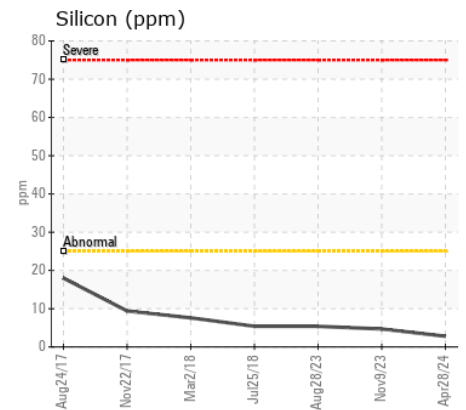
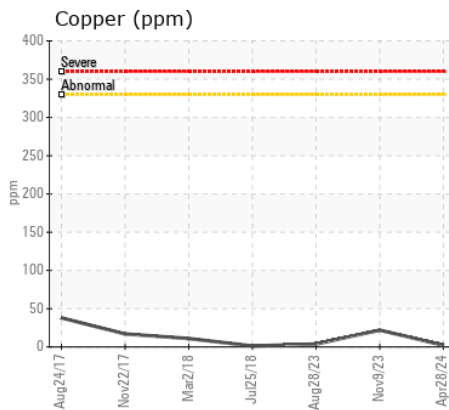
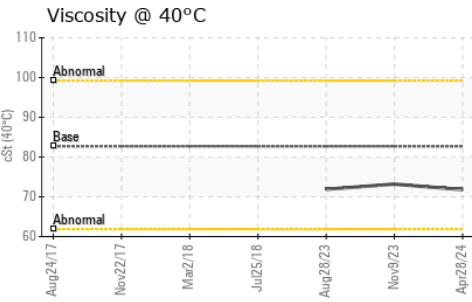
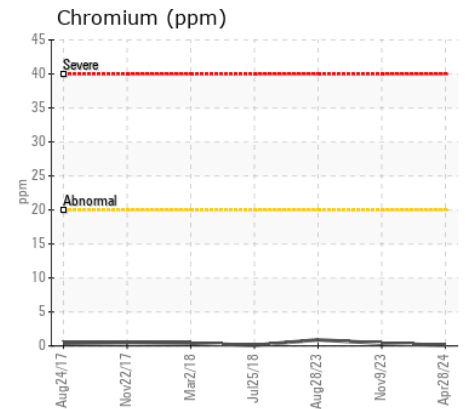
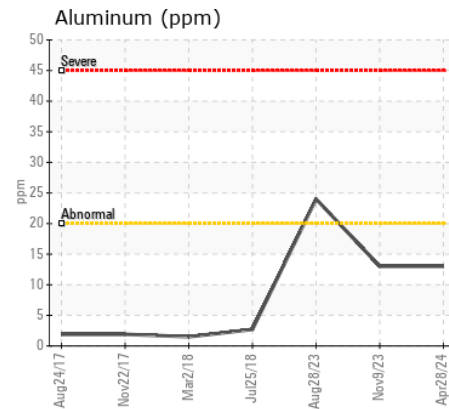
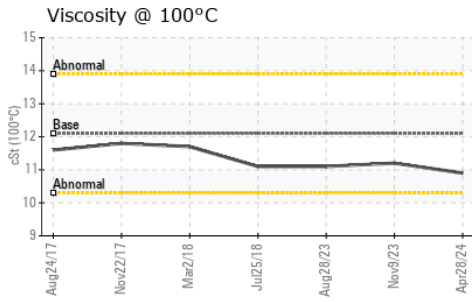
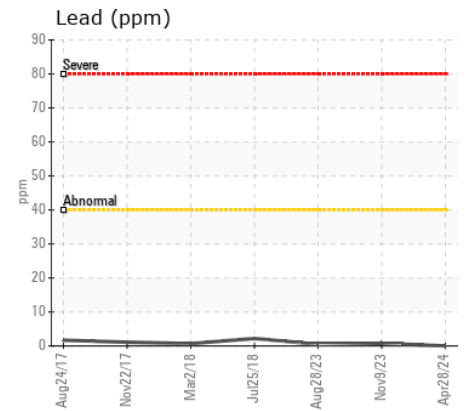
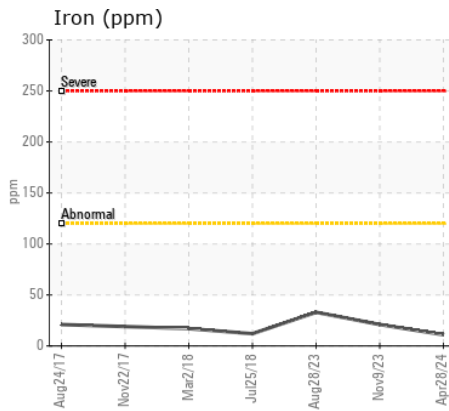
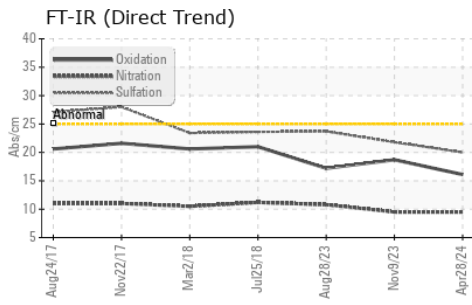
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>3</b>	5	5
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	2	12
Fuel		WC Method	>3.0	<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	0.0
Soot %	%	ASTM D7844*	>4	<b>0.4</b>	0.5	0.9
Nitration	Abs/cm	ASTM D7624*	>20	<b>9.5</b>	9.5	10.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>20.0</b>	21.8	23.7
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	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>7</b>	12	12
Boron	ppm	ASTM D5185(m)		<b>3</b>	4	6
Barium	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)		<b>60</b>	58	61
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185(m)		<b>963</b>	935	945
Calcium	ppm	ASTM D5185(m)		<b>1060</b>	1012	1051
Phosphorus	ppm	ASTM D5185(m)		<b>983</b>	914	1010
Zinc	ppm	ASTM D5185(m)		<b>1158</b>	1121	1153
Sulfur	ppm	ASTM D5185(m)		<b>2399</b>	1856	2396
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>16.1</b>	18.7	17.2
Visc @ 40°C	cSt	ASTM D7279(m)	82.7	<b>71.8</b>	73.2	71.9
Visc @ 100°C	cSt	ASTM D7279(m)	12.1	<b>10.9</b>	11.2	11.1
Viscosity Index (VI)	Scale	ASTM D2270*	142	<b>141</b>	144	145



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0071264 **Received** : 29 Apr 2024  
**Lab Number** : 02631879 **Tested** : 29 Apr 2024  
**Unique Number** : 5773032 **Diagnosed** : 29 Apr 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI, Visual )

**Wasteco**  
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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.