



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
CATERPILLAR 320B EXC01
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0902315	WC0726841	---
Sample Date		Client Info		07 Apr 2024	08 Sep 2022	---
Machine Age	hrs	Client Info		19178	18660	---
Oil Age	hrs	Client Info		0	250	---
Filter Age	hrs	Client Info		0	250	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				NORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	9	9	---
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	---
Nickel	ppm	ASTM D5185(m)	>2	0	0	---
Titanium	ppm	ASTM D5185(m)	>2	0	<1	---
Silver	ppm	ASTM D5185(m)	>2	0	0	---
Aluminum	ppm	ASTM D5185(m)	>25	2	2	---
Lead	ppm	ASTM D5185(m)	>40	<1	3	---
Copper	ppm	ASTM D5185(m)	>330	<1	<1	---
Tin	ppm	ASTM D5185(m)	>15	0	<1	---
Vanadium	ppm	ASTM D5185(m)		0	0	---

CONTAMINATION

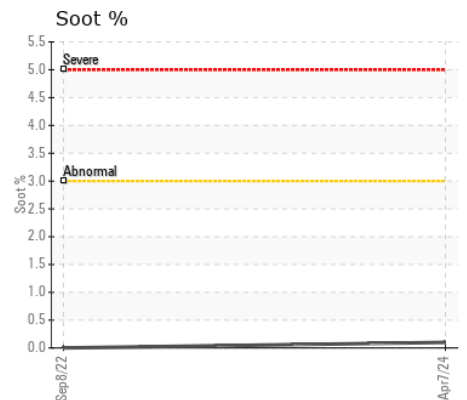
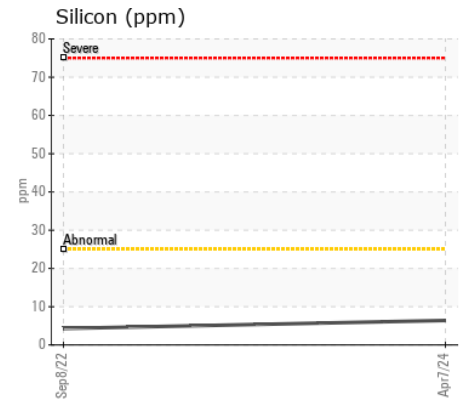
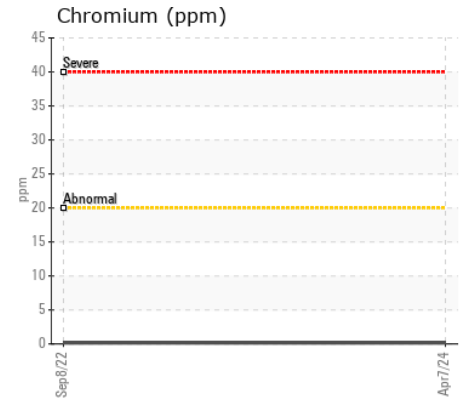
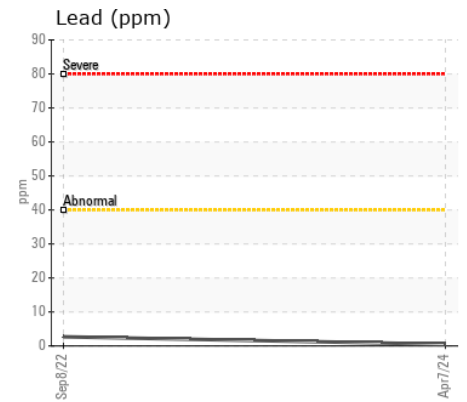
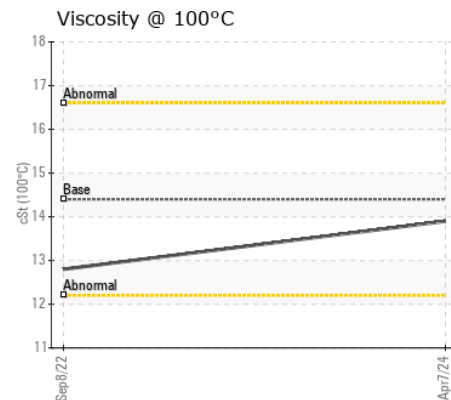
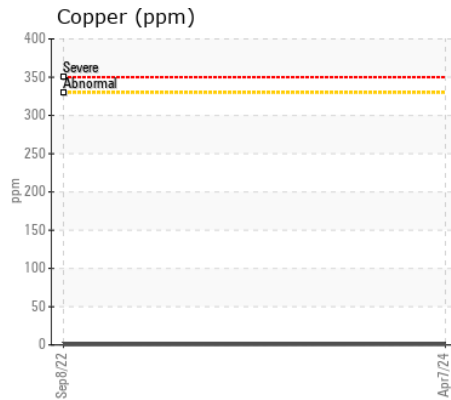
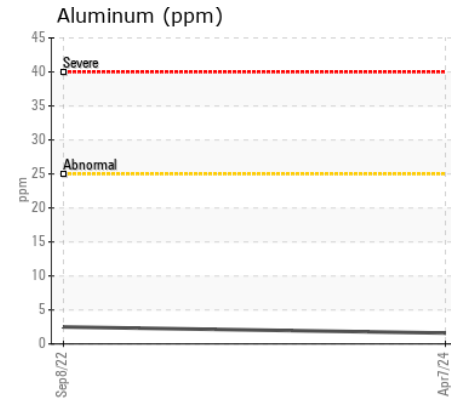
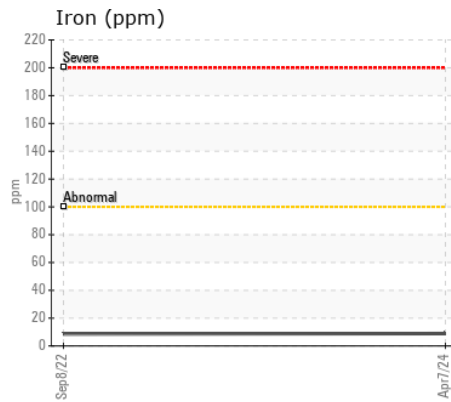
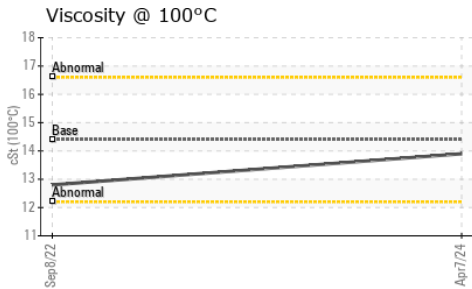
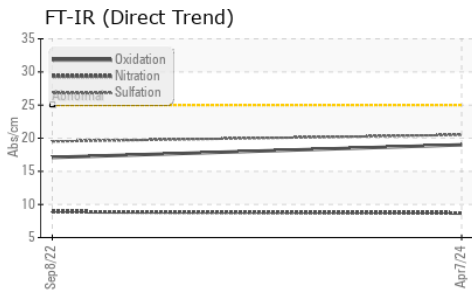
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	6	4	---
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	ASTM D7844*	>3	0.1	0	---
Nitration	Abs/cm	ASTM D7624*	>20	8.7	8.9	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.5	19.5	---
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	---

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)	>158	2	2	---
Boron	ppm	ASTM D5185(m)	250	21	18	---
Barium	ppm	ASTM D5185(m)	10	0	0	---
Molybdenum	ppm	ASTM D5185(m)	100	54	71	---
Manganese	ppm	ASTM D5185(m)		0	<1	---
Magnesium	ppm	ASTM D5185(m)	450	852	827	---
Calcium	ppm	ASTM D5185(m)	3000	1346	1133	---
Phosphorus	ppm	ASTM D5185(m)	1150	945	988	---
Zinc	ppm	ASTM D5185(m)	1350	1117	1095	---
Sulfur	ppm	ASTM D5185(m)	4250	2472	2394	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	19.0	17.1	---
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	13.9	12.8	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0902315 **Received** : 12 Apr 2024
Lab Number : 02628357 **Tested** : 12 Apr 2024
Unique Number : 5761489 **Diagnosed** : 12 Apr 2024 - Wes Davis
Test Package : MOB 1

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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.