



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



Machine Id  
**CATERPILLAR CB64B 2161601**  
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		<b>PC0084917</b>	PC0066116	PC0043299
Sample Date		Client Info		<b>29 Feb 2024</b>	01 Dec 2022	09 Nov 2021
Machine Age	hrs	Client Info		<b>3667</b>	3153	2625
Oil Age	hrs	Client Info		<b>500</b>	500	500
Filter Age	hrs	Client Info		<b>500</b>	500	500
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>35</b>	30	26
Chromium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<b>5</b>	5	4
Lead	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185(m)	>330	<b>3</b>	3	3
Tin	ppm	ASTM D5185(m)	>15	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	---	---

**CONTAMINATION**

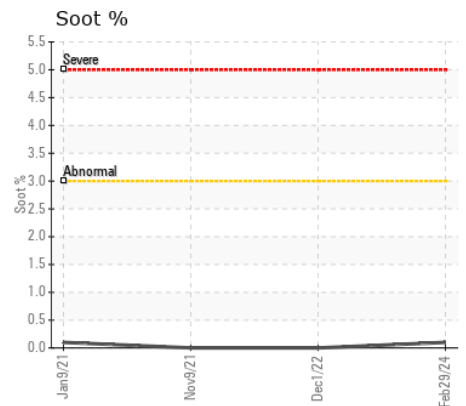
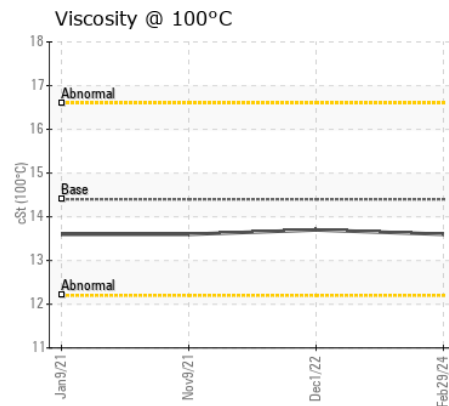
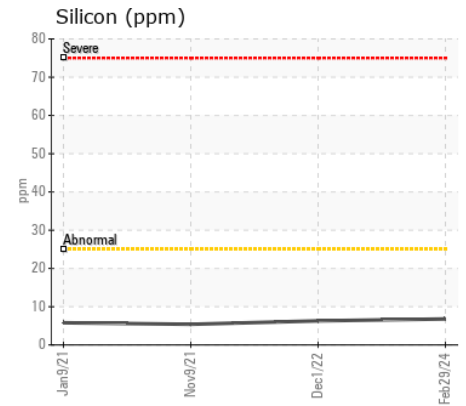
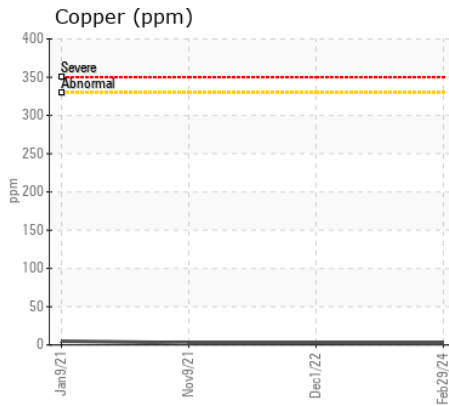
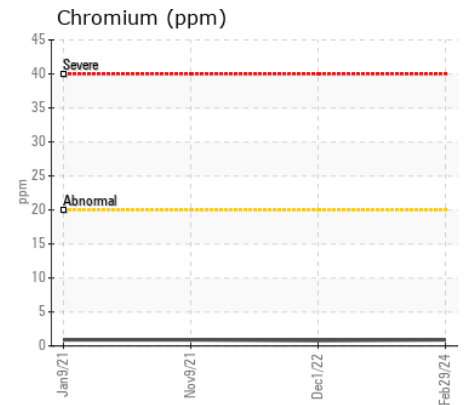
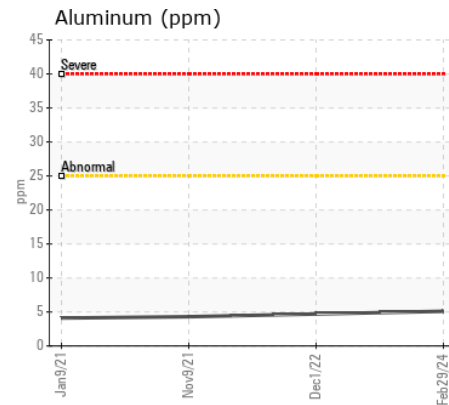
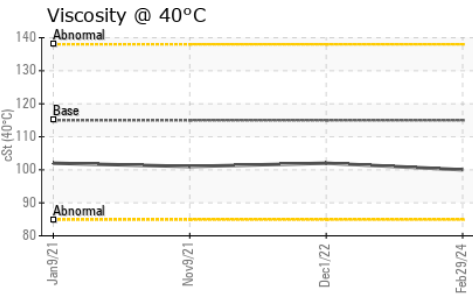
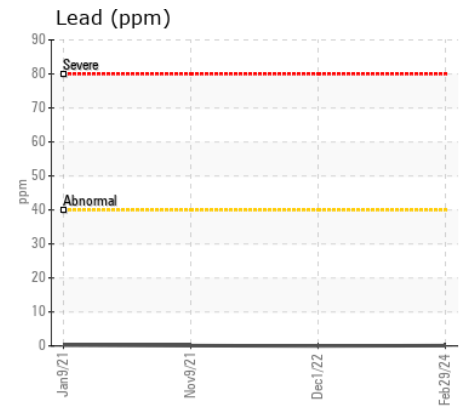
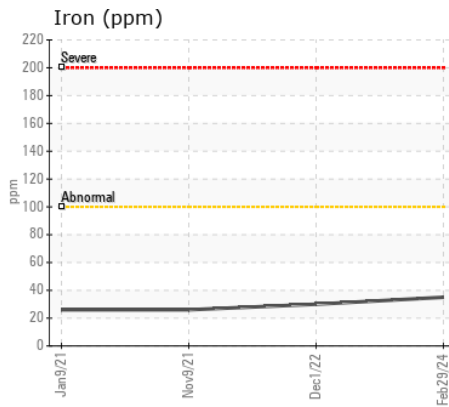
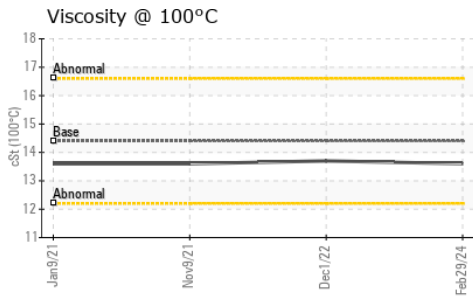
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	<b>7</b>	6	5
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	<1
Fuel		WC Method	>5	<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	NEG
Soot %	%	ASTM D7844*	>3	<b>0.1</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>10.2</b>	9.5	9.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>19.4</b>	20.6	20.3
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>VLITE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
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)	>158	<b>2</b>	2	1
Boron	ppm	ASTM D5185(m)	250	<b>2</b>	2	2
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	100	<b>61</b>	61	62
Manganese	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	<b>1006</b>	1014	1059
Calcium	ppm	ASTM D5185(m)	3000	<b>1168</b>	1154	1075
Phosphorus	ppm	ASTM D5185(m)	1150	<b>1083</b>	1126	1115
Zinc	ppm	ASTM D5185(m)	1350	<b>1266</b>	1275	1293
Sulfur	ppm	ASTM D5185(m)	4250	<b>2722</b>	2608	2584
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>16.9</b>	17.0	16.5
Visc @ 40°C	cSt	ASTM D7279(m)	115	<b>100</b>	102	101
Visc @ 100°C	cSt	ASTM D7279(m)	14.4	<b>13.6</b>	13.7	13.6
Viscosity Index (VI)	Scale	ASTM D2270*	126	<b>136</b>	134	134



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PC0084917  
**Lab Number** : 02619506  
**Unique Number** : 5736616  
**Test Package** : MOB 1 ( Additional Tests: KV40, VI, Visual )

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

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.

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