



# VOLVO

## OIL ANALYSIS REPORT

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



Area  
**[8-397998]**  
 Machine Id  
**VOLVO EC480E 310415**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 30 (--- GAL)**

### RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP394471</b>	VCP353267	VCP392090
Sample Date		Client Info		<b>21 Mar 2024</b>	15 Nov 2023	06 Apr 2023
Machine Age	hrs	Client Info		<b>7470</b>	6980	6488
Oil Age	hrs	Client Info		<b>500</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	<b>7</b>	4	12
Chromium	ppm	ASTM D5185(m)	>10	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185(m)	>10	<b>3</b>	<1	4
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>10	<b>1</b>	<1	2
Lead	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	1
Copper	ppm	ASTM D5185(m)	>15	<b>2</b>	2	<1
Tin	ppm	ASTM D5185(m)	>10	<b>1</b>	<1	<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 a moderate concentration of dirt present in the oil.

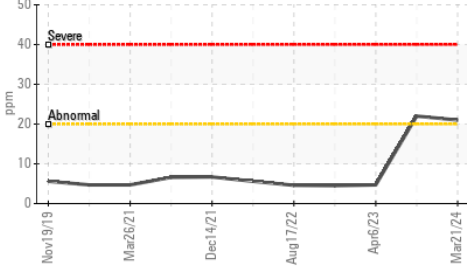
Silicon	ppm	ASTM D5185(m)	>20	<b>▲ 21</b>	▲ 22	5
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	2	<1
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	ASTM D7844*	>3	<b>0</b>	0	0
Nitration	Abs/cm	ASTM D7624*	>20	<b>8.7</b>	5.0	8.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	<b>22.1</b>	22.6	25.0
Silt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Debris	scalar	Visual*	NONE	<b>VLITE</b>	---	---
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	---	---
Appearance	scalar	Visual*	NORML	<b>NORML</b>	---	---
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

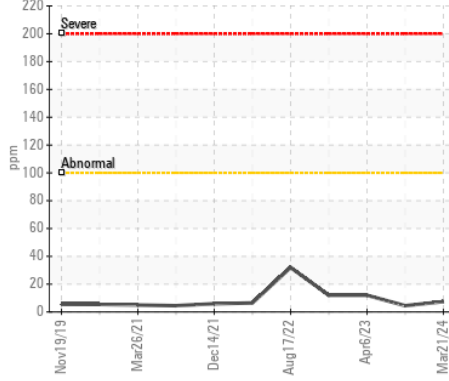
The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)	>75	<b>3</b>	6	2
Boron	ppm	ASTM D5185(m)	250	<b>39</b>	62	35
Barium	ppm	ASTM D5185(m)	10	<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)	100	<b>36</b>	38	40
Manganese	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	450	<b>453</b>	467	509
Calcium	ppm	ASTM D5185(m)	3000	<b>1534</b>	1618	1799
Phosphorus	ppm	ASTM D5185(m)	1150	<b>810</b>	877	1027
Zinc	ppm	ASTM D5185(m)	1350	<b>967</b>	1006	1091
Sulfur	ppm	ASTM D5185(m)	4250	<b>2104</b>	2344	2557
Oxidation	Abs/.1mm	ASTM D7414*	>25	<b>20.8</b>	19.3	21.4
Visc @ 100°C	cSt	ASTM D7279(m)	10.9	<b>10.1</b>	12.1	12.4

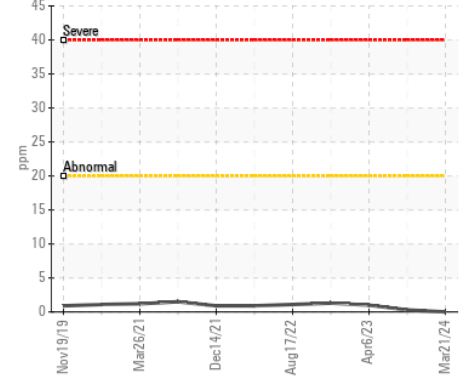
▲ Silicon (ppm)



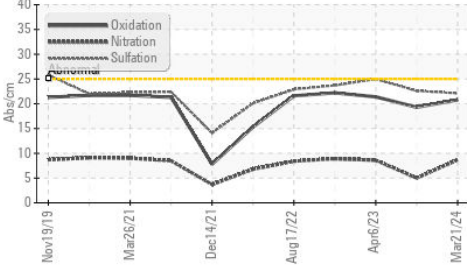
Iron (ppm)



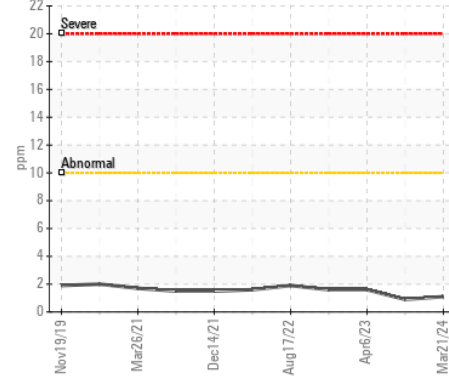
Lead (ppm)



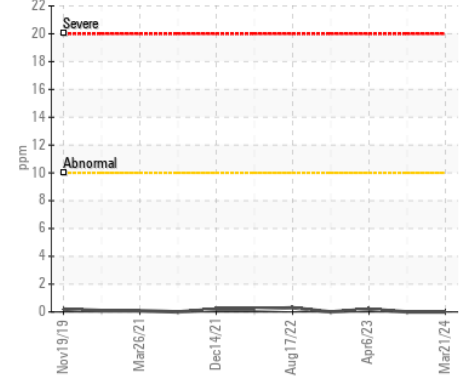
FT-IR (Direct Trend)



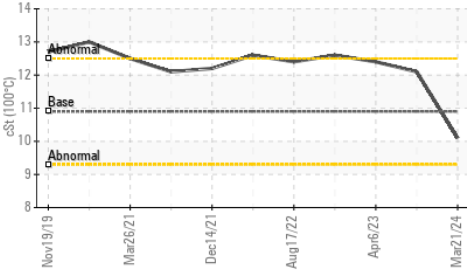
Aluminum (ppm)



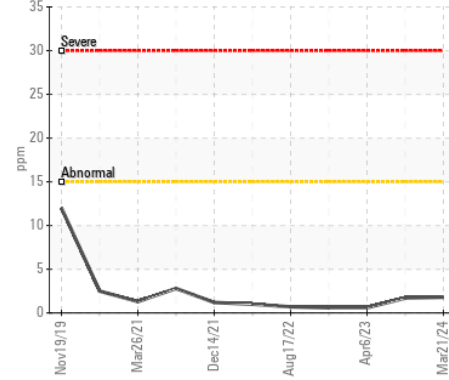
Chromium (ppm)



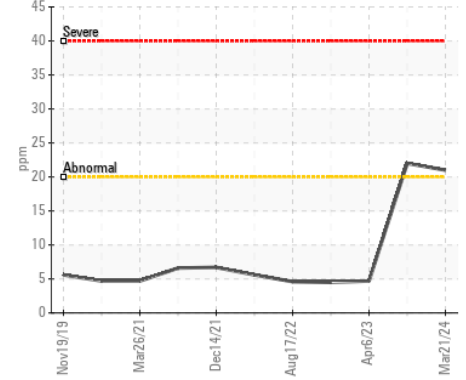
Viscosity @ 100°C



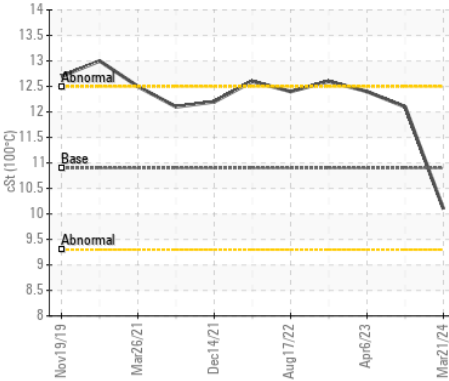
Copper (ppm)



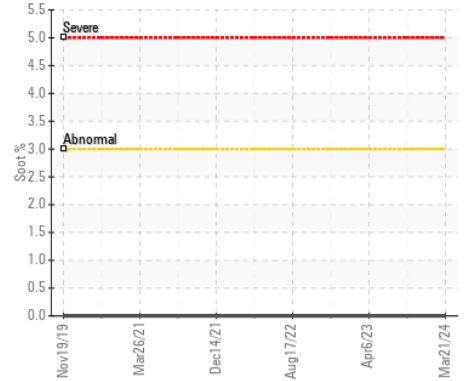
▲ Silicon (ppm)



Viscosity @ 100°C



Soot %



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : VCP394471 **Received** : 10 Apr 2024  
**Lab Number** : 02627847 **Tested** : 10 Apr 2024  
**Unique Number** : 5760979 **Diagnosed** : 10 Apr 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: Visual )

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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