



# VOLVO

## OIL ANALYSIS REPORT

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



Area  
**TMR-West Palm [SPM700380]**

Machine Id  
**311390 VOLVO EC380 311390**

Component  
**Diesel Engine**

Fluid  
**VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP417963</b>	VCP433830	VCP410069
Sample Date		Client Info		<b>08 Apr 2024</b>	12 Sep 2023	11 May 2023
Machine Age	hrs	Client Info		<b>7409</b>	6458	6041
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>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>&lt;1</b>	4	3
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m	>10	<b>1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>2</b>	<1	<1
Lead	ppm	ASTM D5185m	>20	<b>2</b>	3	2
Copper	ppm	ASTM D5185m	>15	<b>&lt;1</b>	1	<1
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

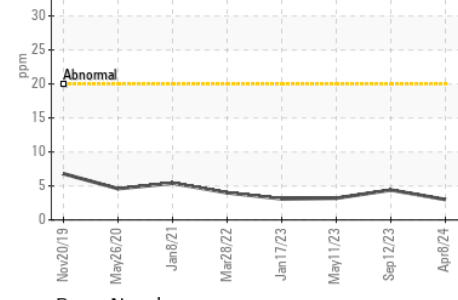
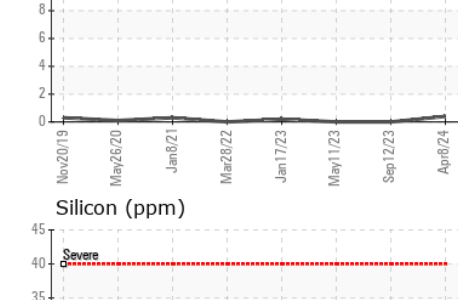
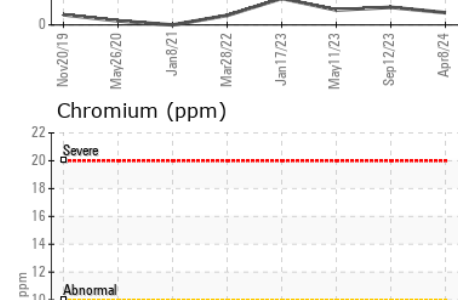
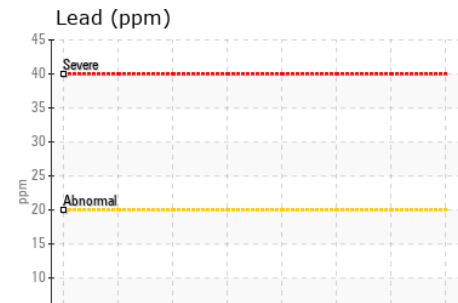
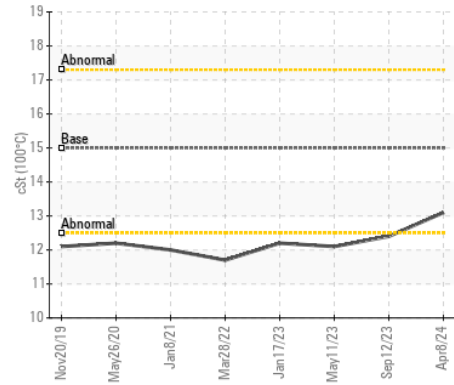
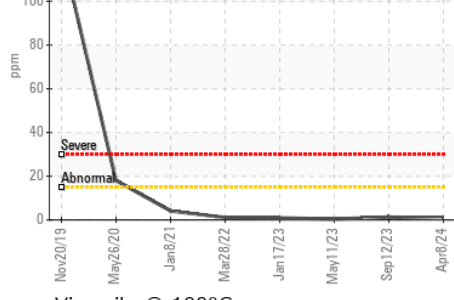
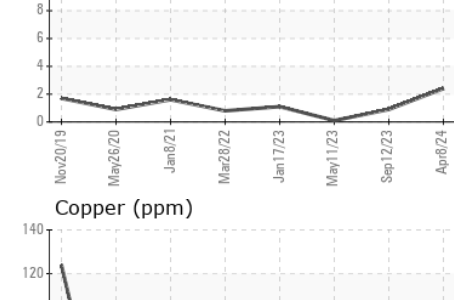
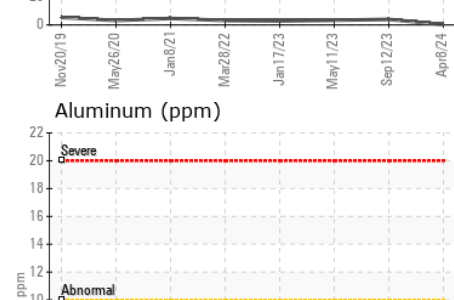
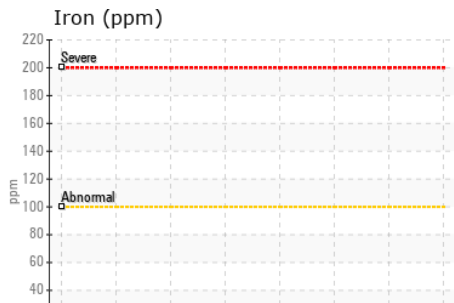
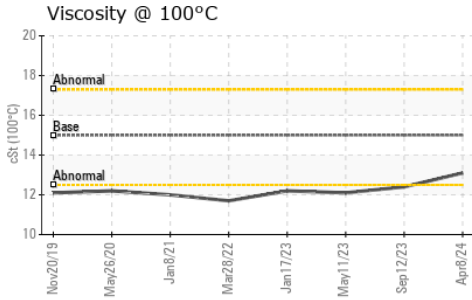
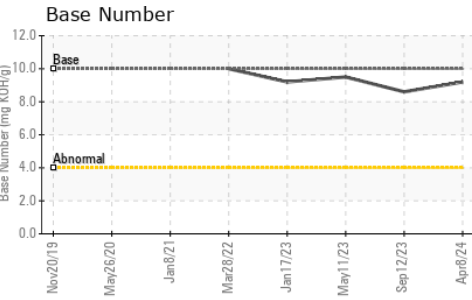
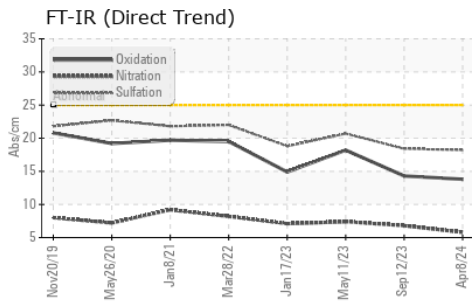
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>3</b>	4	3
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	1	2
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>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.8</b>	6.8	7.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.2</b>	18.4	20.7
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	2	3
Boron	ppm	ASTM D5185m	2.5	<b>0</b>	<1	15
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.7	<b>65</b>	60	52
Manganese	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	256	<b>1056</b>	1057	835
Calcium	ppm	ASTM D5185m	2057	<b>1163</b>	1224	1572
Phosphorus	ppm	ASTM D5185m	935	<b>1144</b>	1074	1092
Zinc	ppm	ASTM D5185m	1223	<b>1325</b>	1342	1407
Sulfur	ppm	ASTM D5185m	4079	<b>3586</b>	3909	4078
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>13.8</b>	14.3	18.2
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>9.2</b>	8.6	9.5
Visc @ 100°C	cSt	ASTM D445	15.0	<b>13.1</b>	12.4	12.1



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP417963 **Received** : 15 Apr 2024  
**Lab Number** : 06148356 **Tested** : 15 Apr 2024  
**Unique Number** : 10978434 **Diagnosed** : 17 Apr 2024 - Sean Felton  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**TRADEMARK METALS RECYCLING - WEST PALM**  
 6552 NORTH JOG ROAD  
 WEST PALM BEACH, FL  
 US 33412  
 Contact: RYAN BOWDEN

To discuss this sample report, contact Customer Service at 1-800-237-1369.  
 \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.  
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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