



# VOLVO

## OIL ANALYSIS REPORT

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



Area  
**[SPM717168]**  
 Machine Id  
**VOLVO EC480E 314792**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

### RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>VCP436303</b>	VCP429124	VCP409262
Sample Date		Client Info		<b>07 Jun 2024</b>	02 Nov 2023	07 Jul 2023
Machine Age	hrs	Client Info		<b>3996</b>	3011	2503
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>ATTENTION</b>	ATTENTION	ATTENTION

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>9</b>	7	9
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>&lt;1</b>	2	<1
Lead	ppm	ASTM D5185m	>20	<b>0</b>	<1	2
Copper	ppm	ASTM D5185m	>15	<b>11</b>	11	11
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

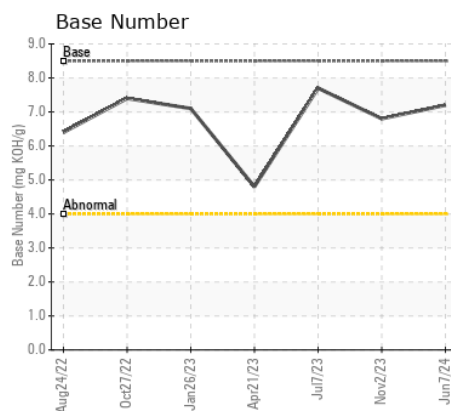
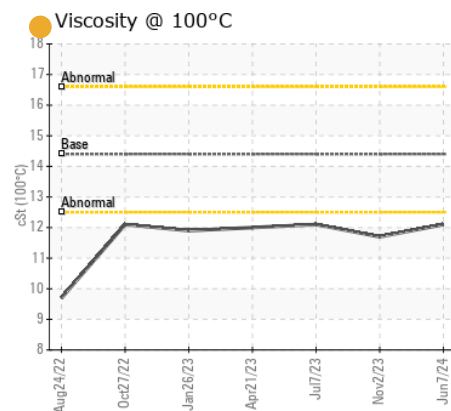
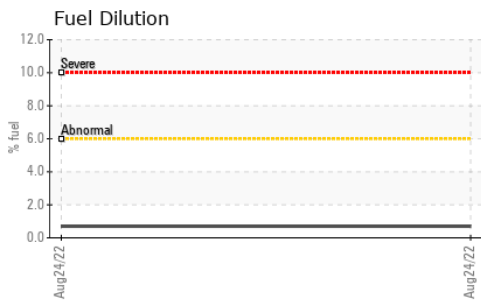
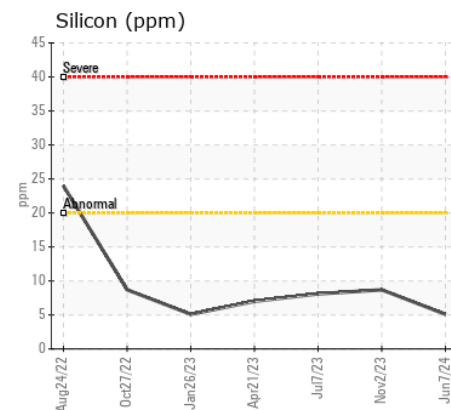
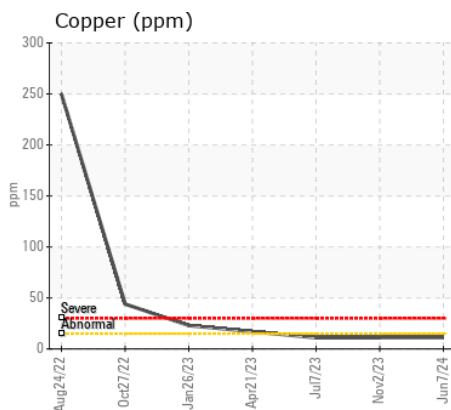
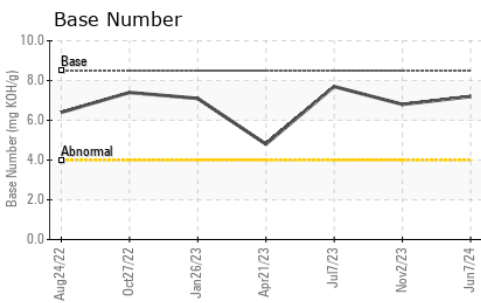
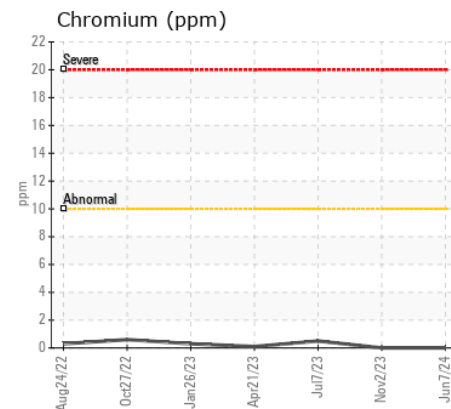
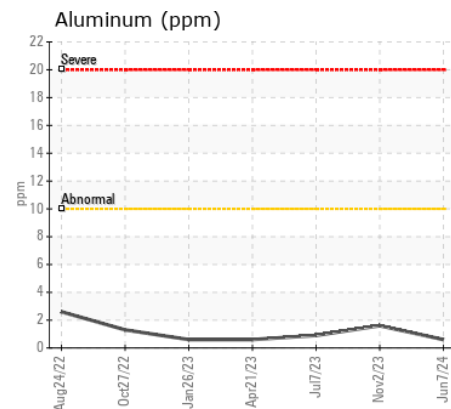
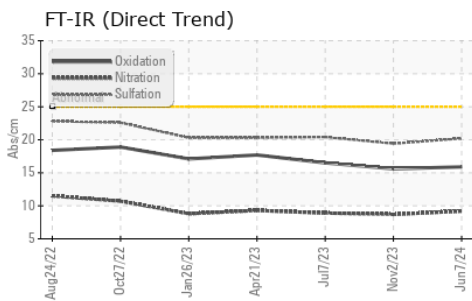
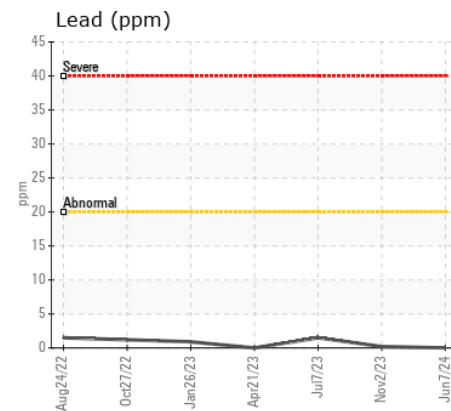
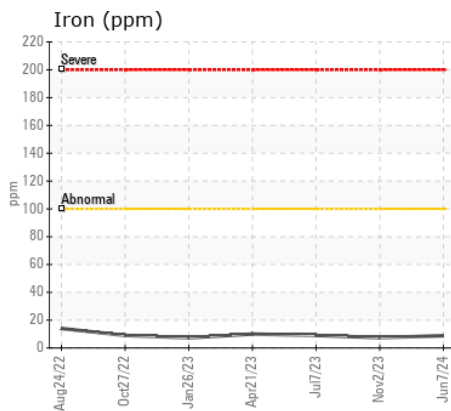
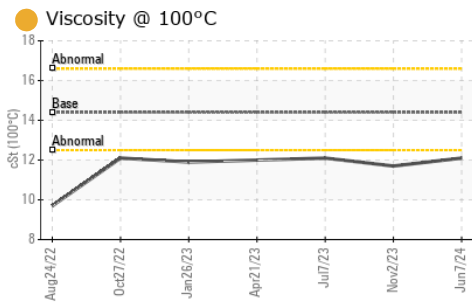
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>5</b>	9	8
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	<1
Fuel	%	ASTM D3524	>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>0.5</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.2</b>	8.7	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.2</b>	19.4	20.4
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>158	<b>1</b>	0	<1
Boron	ppm	ASTM D5185m	250	<b>0</b>	2	2
Barium	ppm	ASTM D5185m	10	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>56</b>	56	60
Manganese	ppm	ASTM D5185m		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m	450	<b>936</b>	853	1031
Calcium	ppm	ASTM D5185m	3000	<b>1078</b>	1032	1115
Phosphorus	ppm	ASTM D5185m	1150	<b>1006</b>	901	1041
Zinc	ppm	ASTM D5185m	1350	<b>1190</b>	1096	1330
Sulfur	ppm	ASTM D5185m	4250	<b>3315</b>	2905	3570
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.9</b>	15.6	16.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>7.2</b>	6.8	7.7
Visc @ 100°C	cSt	ASTM D445	14.4	<b>12.1</b>	11.7	12.1



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP436303 **Received** : 19 Jun 2024  
**Lab Number** : 06214351 **Tested** : 20 Jun 2024  
**Unique Number** : 11087215 **Diagnosed** : 21 Jun 2024 - Don Baldrige  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, TBN )

**SIMS METAL MANAGEMENT**  
 2500 S. PAULINA  
 CHICAGO, IL  
 US 60608  
 Contact: RYAN WISE  
 ryan.wise@simsmm.com

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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F: