



# VOLVO

## OIL ANALYSIS REPORT

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



Area

[226214]

Machine Id

**VOLVO L90H 624272**

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>VCP441601</b>	VCP441944	VCP398567
Sample Date		Client Info		<b>21 Jun 2024</b>	06 Dec 2023	10 Jul 2023
Machine Age	hrs	Client Info		<b>10478</b>	10017	9497
Oil Age	hrs	Client Info		<b>580</b>	0	600
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>10</b>	8	10
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>5</b>	3	3
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>15	<b>1</b>	2	2
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	<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

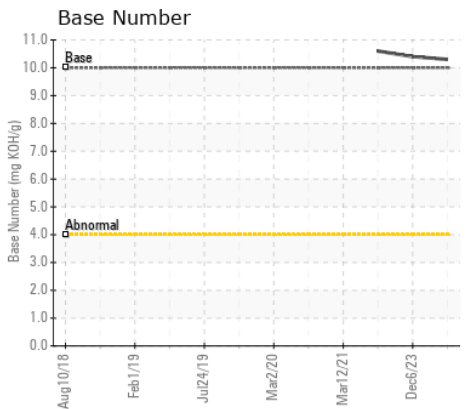
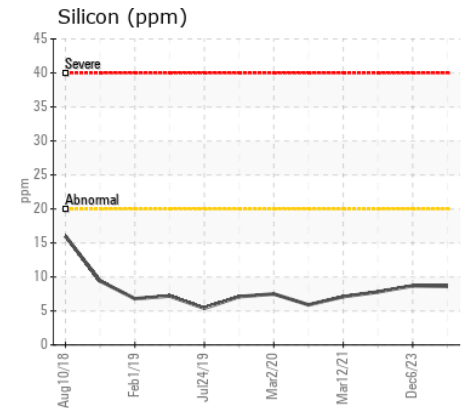
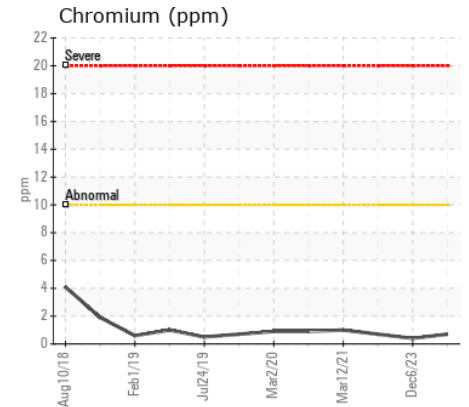
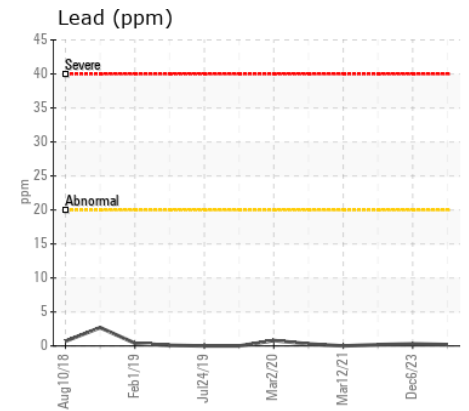
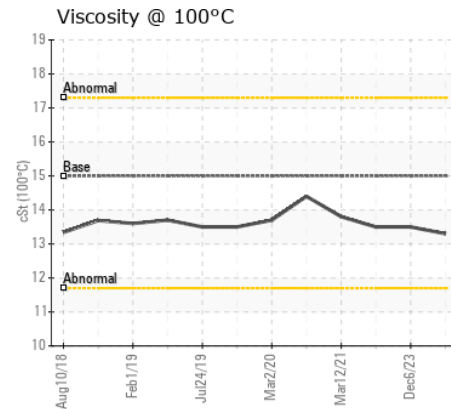
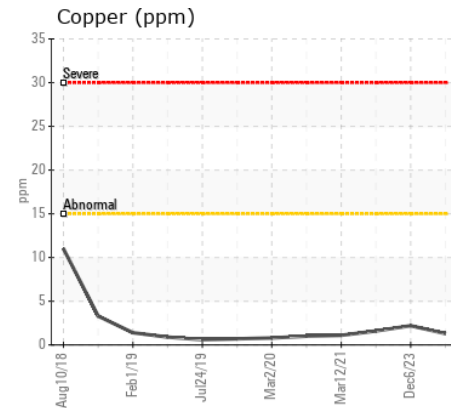
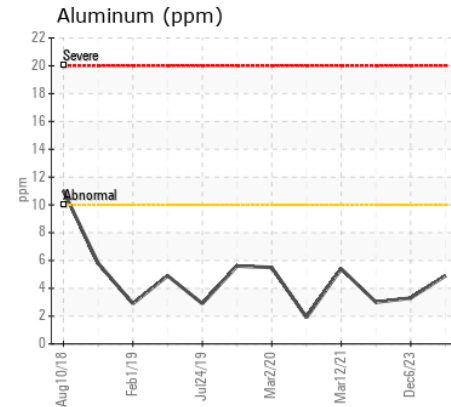
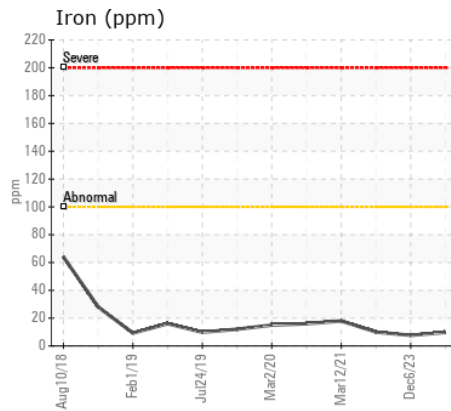
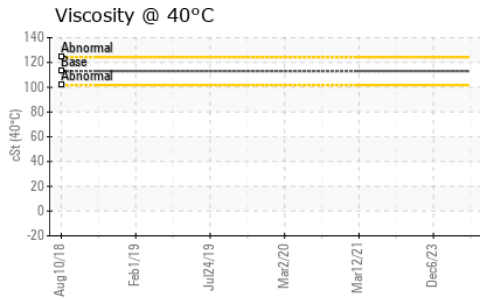
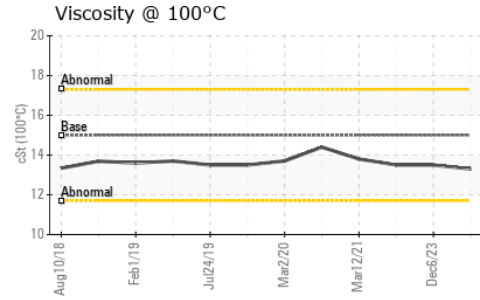
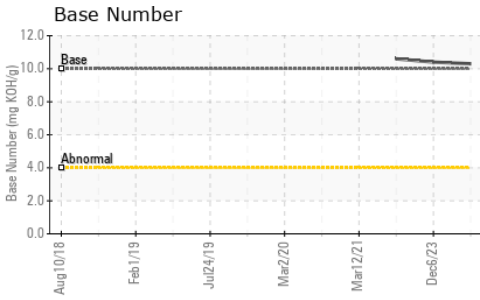
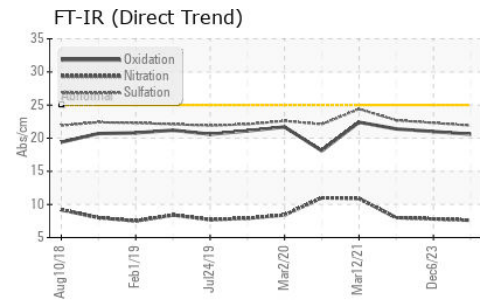
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>9</b>	9	8
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	<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>0.4</b>	0.4	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.6</b>	7.8	8.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.9</b>	22.3	22.7
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>1</b>	2	2
Boron	ppm	ASTM D5185m	2.5	<b>40</b>	32	34
Barium	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	0.7	<b>43</b>	42	42
Manganese	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	256	<b>498</b>	457	593
Calcium	ppm	ASTM D5185m	2057	<b>1696</b>	1734	1879
Phosphorus	ppm	ASTM D5185m	935	<b>894</b>	950	1020
Zinc	ppm	ASTM D5185m	1223	<b>1103</b>	1168	1249
Sulfur	ppm	ASTM D5185m	4079	<b>2563</b>	2402	3696
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.6</b>	21.0	21.4
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>10.3</b>	10.4	10.6
Visc @ 100°C	cSt	ASTM D445	15.0	<b>13.3</b>	13.5	13.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP441601 **Received** : 02 Jul 2024  
**Lab Number** : 06225758 **Tested** : 03 Jul 2024  
**Unique Number** : 11103955 **Diagnosed** : 03 Jul 2024 - Don Baldridge  
**Test Package** : MOB 1 ( Additional Tests: KV40, TBN )

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)

**PACWEST MACHINERY**  
 8207 SOUTH 216TH STREET  
 KENT, WA  
 US 98032

Contact: CHRIS COPELAND  
 ccopeland@pacwestmachinery.com

T: (800)935-5933

F: (509)534-5286