



# VOLVO

## OIL ANALYSIS REPORT

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



Area

**[CITRUS COUNTY]**

Machine Id

**VOLVO L110H 632401**

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>VCP440673</b>	VCP431748	VCP433370
Sample Date		Client Info		<b>27 Mar 2024</b>	07 Feb 2024	18 Oct 2023
Machine Age	hrs	Client Info		<b>3649</b>	3072	2627
Oil Age	hrs	Client Info		<b>0</b>	0	500
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	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>12</b>	10	11
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>8</b>	6	6
Lead	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>15	<b>2</b>	3	3
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

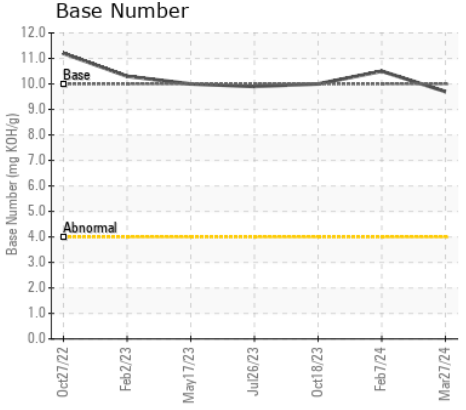
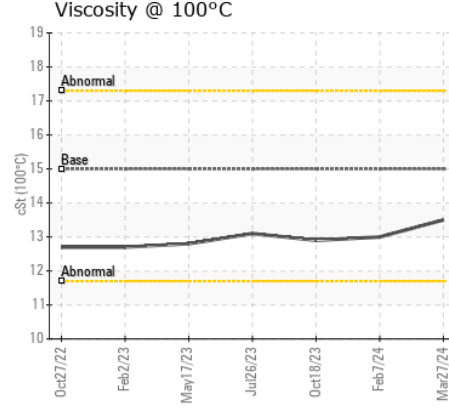
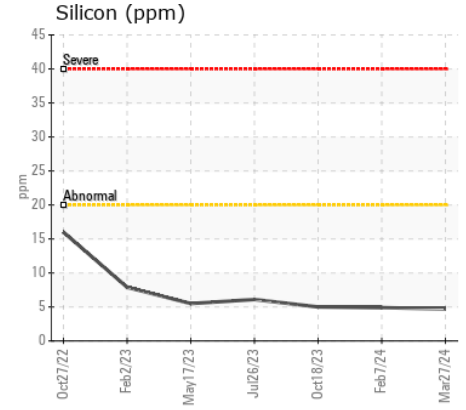
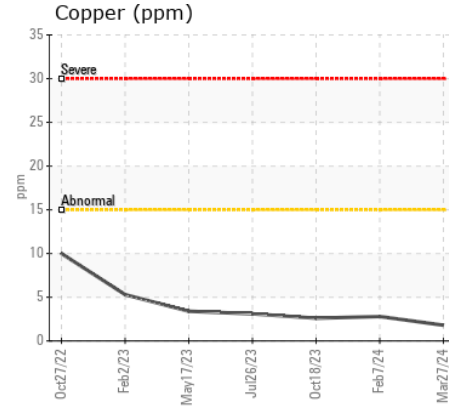
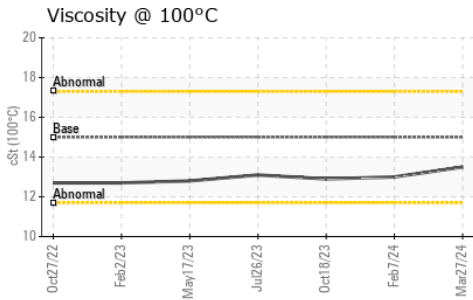
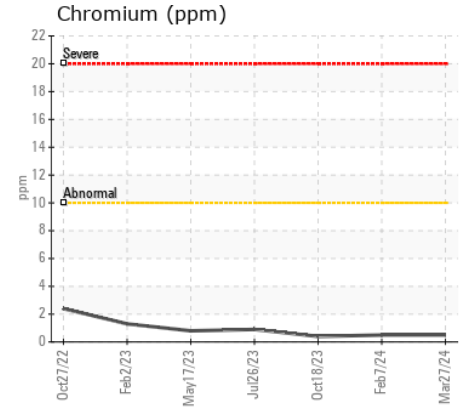
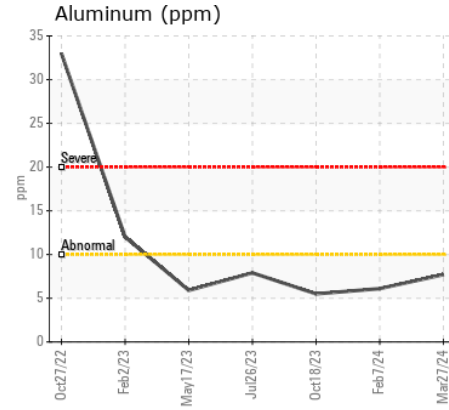
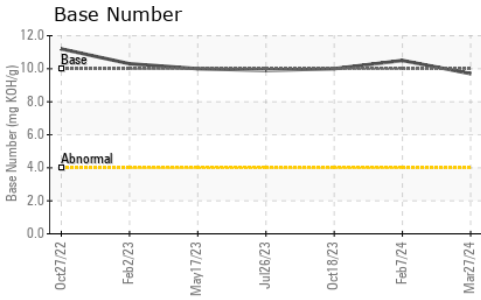
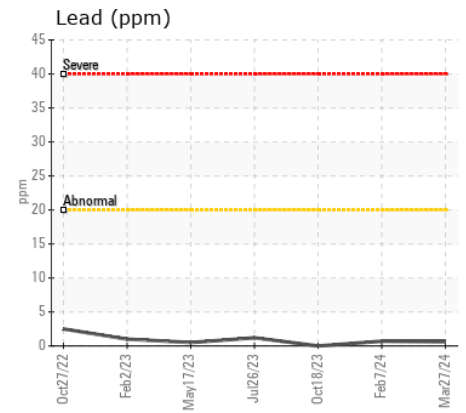
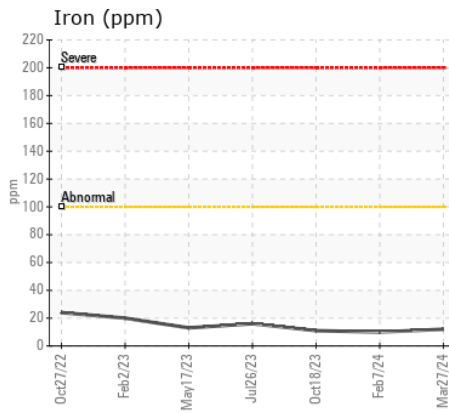
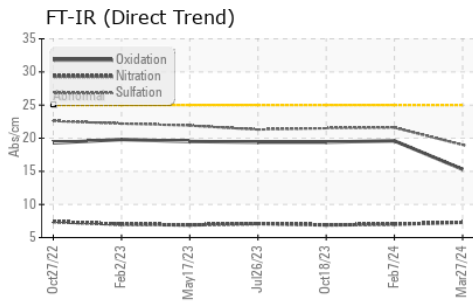
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>5</b>	5	5
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	3	3
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>	0.3	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.3</b>	7.0	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.0</b>	21.6	21.5
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>2</b>	0	1
Boron	ppm	ASTM D5185m	2.5	<b>8</b>	40	38
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	<1	7
Molybdenum	ppm	ASTM D5185m	0.7	<b>55</b>	36	46
Manganese	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m	256	<b>879</b>	448	485
Calcium	ppm	ASTM D5185m	2057	<b>1223</b>	1761	1607
Phosphorus	ppm	ASTM D5185m	935	<b>1059</b>	971	923
Zinc	ppm	ASTM D5185m	1223	<b>1236</b>	1100	1101
Sulfur	ppm	ASTM D5185m	4079	<b>3512</b>	3250	3473
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.3</b>	19.6	19.4
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>9.7</b>	10.5	10.0
Visc @ 100°C	cSt	ASTM D445	15.0	<b>13.5</b>	13.0	12.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP440673  
**Lab Number** : 06187259  
**Unique Number** : 11044011  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**ALTA EQUIPMENT/FLAGLER CONSTRUCTION EQUIPMENT LLC**  
 8418 PALM RIVER ROAD  
 TAMPA, FL  
 US 33619  
 Contact: KENNY HANEY  
 khaney@flaglerce.com

**Received** : 22 May 2024  
**Tested** : 23 May 2024  
**Diagnosed** : 23 May 2024 - Don Baldrige

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)