



# VOLVO

## OIL ANALYSIS REPORT

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

Area

**TMR-Okeechobee**

Machine Id

**434166 VOLVO L180H 4821**

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>VCP454517</b>	VCP445664	VCP432915
Sample Date		Client Info		<b>18 May 2024</b>	12 Feb 2024	23 Jan 2024
Machine Age	hrs	Client Info		<b>16357</b>	15531	15313
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	>200	<b>6</b>	3	10
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>1</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>2</b>	1	3
Lead	ppm	ASTM D5185m	>40	<b>1</b>	0	3
Copper	ppm	ASTM D5185m	>20	<b>2</b>	<1	2
Tin	ppm	ASTM D5185m	>20	<b>1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

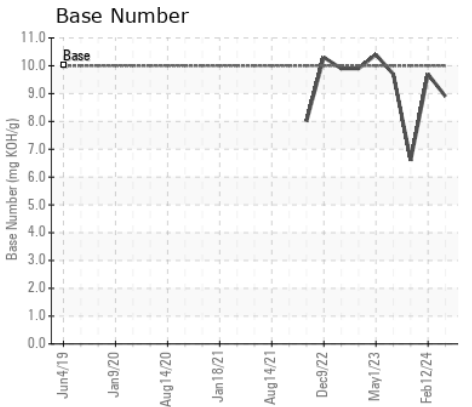
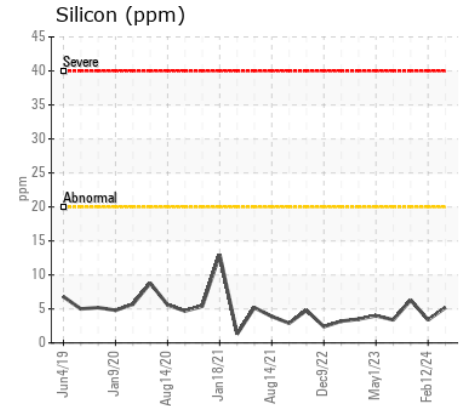
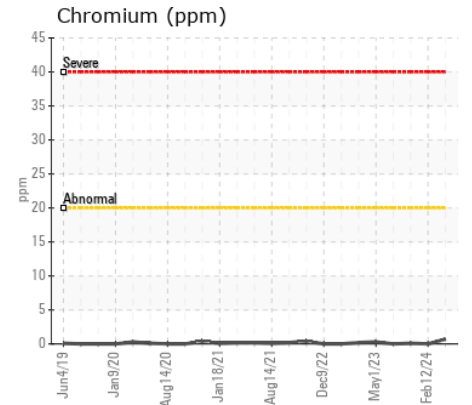
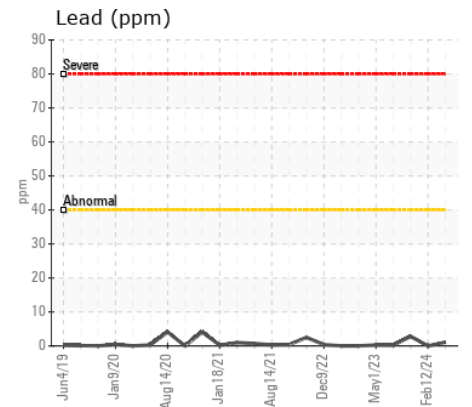
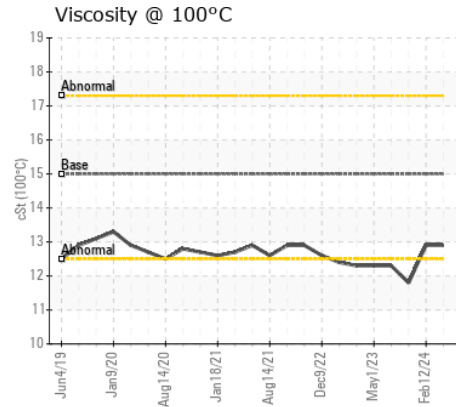
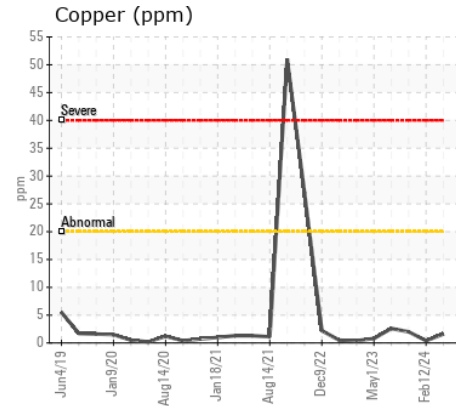
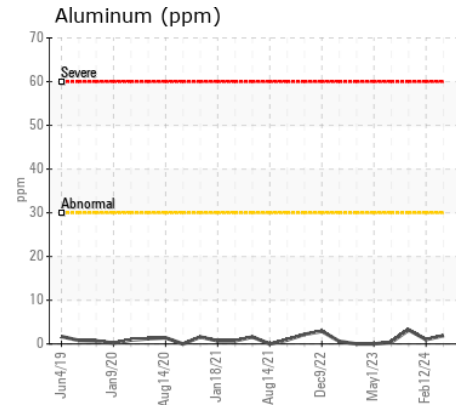
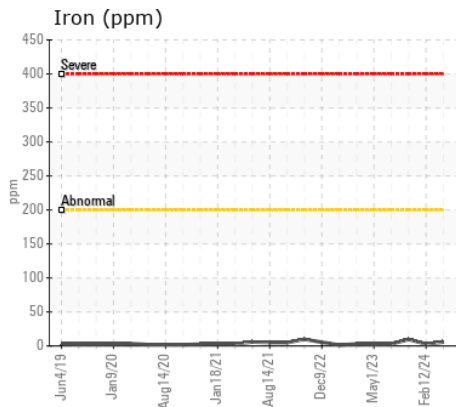
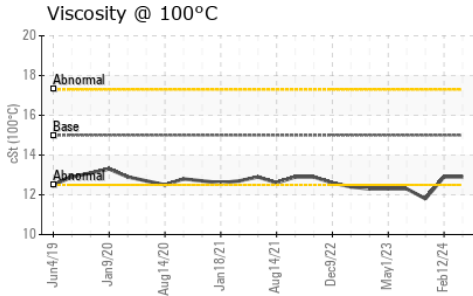
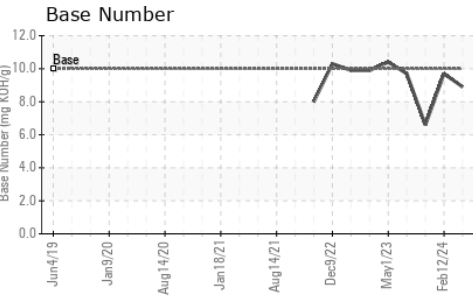
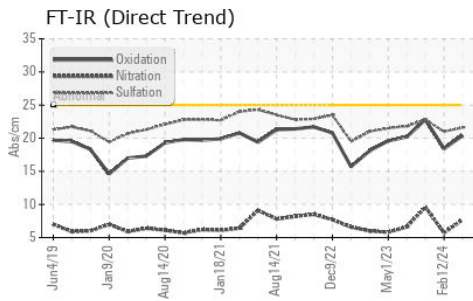
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>5</b>	3	6
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	2
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	<1.0	2.6
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.1	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.7</b>	5.7	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.6</b>	21.0	22.8
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	>0.2	<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>	2	3
Boron	ppm	ASTM D5185m	2.5	<b>24</b>	30	14
Barium	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	11	0
Molybdenum	ppm	ASTM D5185m	0.7	<b>42</b>	42	39
Manganese	ppm	ASTM D5185m	0.0	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	256	<b>551</b>	568	481
Calcium	ppm	ASTM D5185m	2057	<b>1612</b>	1313	1578
Phosphorus	ppm	ASTM D5185m	935	<b>943</b>	829	937
Zinc	ppm	ASTM D5185m	1223	<b>1158</b>	1039	1110
Sulfur	ppm	ASTM D5185m	4079	<b>3212</b>	3018	2721
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.4</b>	18.4	22.8
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>8.9</b>	9.7	6.6
Visc @ 100°C	cSt	ASTM D445	15.0	<b>12.9</b>	12.9	11.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP454517  
**Lab Number** : 06191824  
**Unique Number** : 11048576  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**TRADEMARK METALS RECYCLING - OKEECHOBEE**  
 9800 NE 128TH AVE  
 OKEECHOBEE, FL  
 US 34972  
 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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