



# VOLVO

## OIL ANALYSIS REPORT

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



Area  
**[SWO-072820]**  
 Machine Id  
**VOLVO EC480E 314146**  
 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>VCP442001</b>	VCP432204	VCP419108
Sample Date		Client Info		<b>12 Jun 2024</b>	31 Jan 2024	28 Aug 2023
Machine Age	hrs	Client Info		<b>7399</b>	6892	6421
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	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>7</b>	11	6
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	3	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>10	<b>4</b>	4	2
Lead	ppm	ASTM D5185m	>20	<b>0</b>	<1	1
Copper	ppm	ASTM D5185m	>15	<b>1</b>	4	<1
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

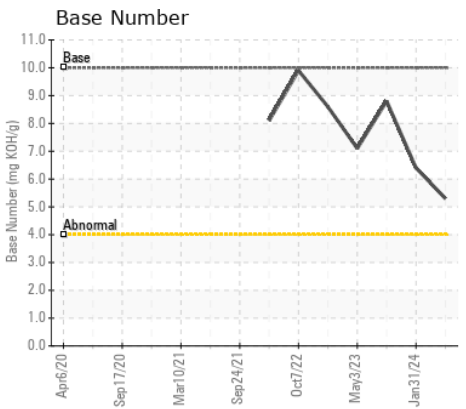
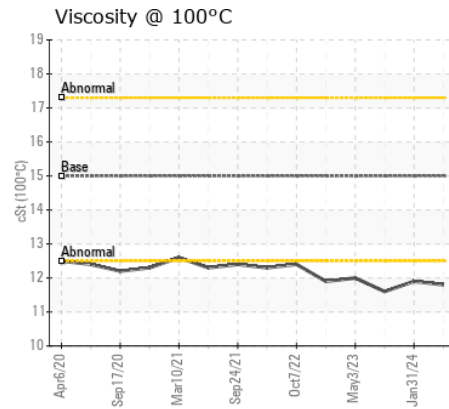
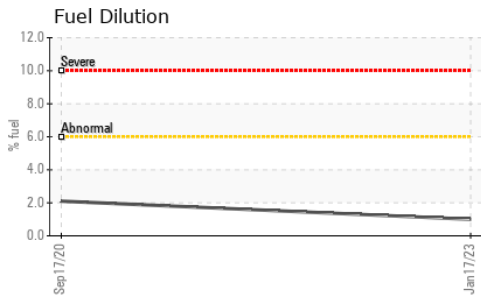
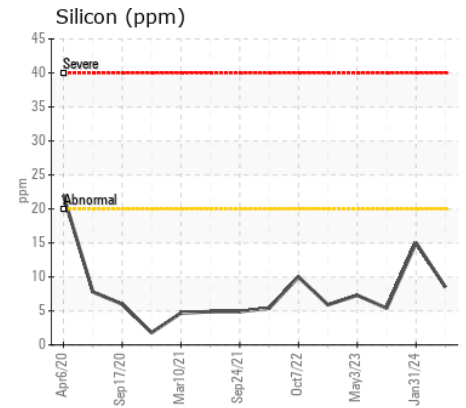
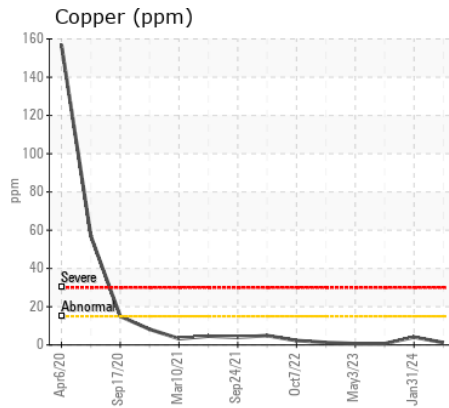
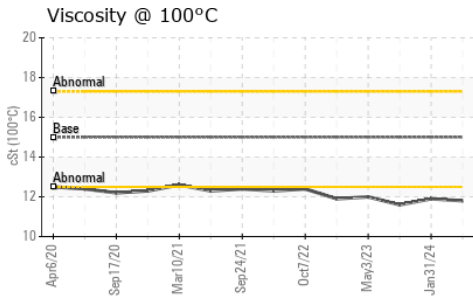
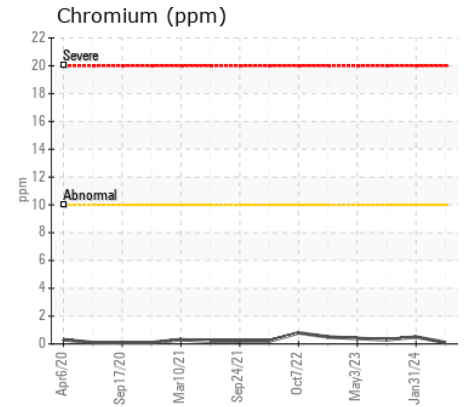
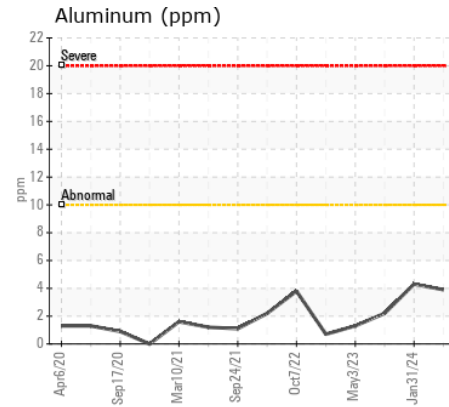
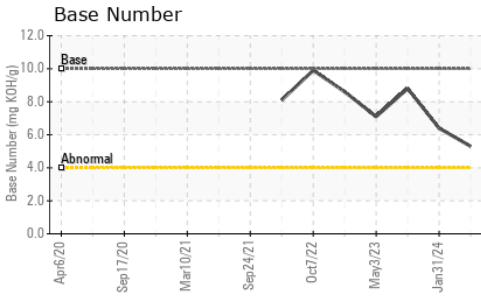
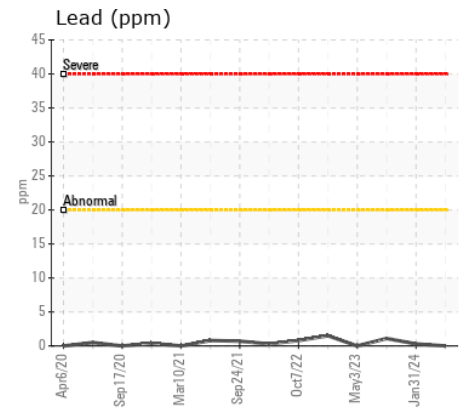
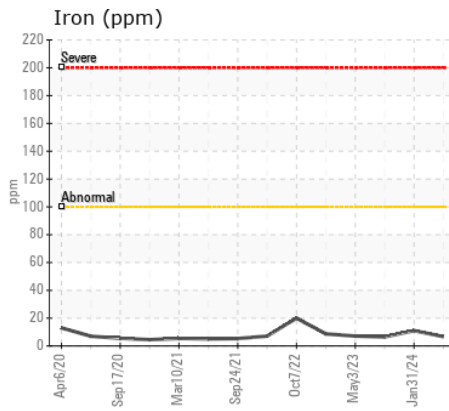
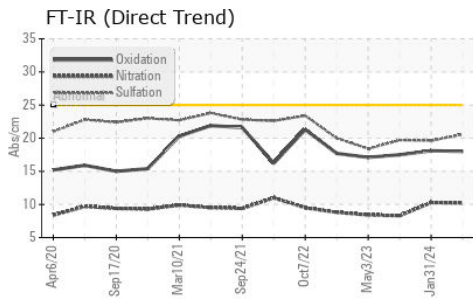
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>8</b>	15	5
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	3	2
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>0.2</b>	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.2</b>	10.3	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>20.6</b>	19.6	19.7
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>4</b>	0	3
Boron	ppm	ASTM D5185m	2.5	<b>23</b>	68	35
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	26	0
Molybdenum	ppm	ASTM D5185m	0.7	<b>88</b>	148	43
Manganese	ppm	ASTM D5185m	0.0	<b>0</b>	0	1
Magnesium	ppm	ASTM D5185m	256	<b>566</b>	884	514
Calcium	ppm	ASTM D5185m	2057	<b>1338</b>	2141	1730
Phosphorus	ppm	ASTM D5185m	935	<b>691</b>	1136	788
Zinc	ppm	ASTM D5185m	1223	<b>835</b>	1382	990
Sulfur	ppm	ASTM D5185m	4079	<b>3353</b>	4792	3432
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.0</b>	18.1	17.5
Base Number (BN)	mg KOH/g	ASTM D2896	10	<b>5.3</b>	6.4	8.8
Visc @ 100°C	cSt	ASTM D445	15.0	<b>11.8</b>	11.9	11.6



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP442001  
**Lab Number** : 06211223  
**Unique Number** : 11084087  
**Test Package** : MOB 1 ( Additional Tests: FuelDilution, TBN )

**SAIIA CONSTRUCTION LLC**  
 4400 LEWISBURG RD  
 BIRMINGHAM, AL  
 US 35207  
 Contact: STEPHANI BRITTON  
 sbritton@saiia.com;doug.bogart@wearcheck.com  
 T: (205)943-2268  
 F: (205)943-2269

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)