



# OIL ANALYSIS REPORT

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



Machine Id  
**310571 VOLVO EC480E 310571**  
Component  
**Diesel Engine**  
Fluid  
**CHEVRON 15W40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>DJJ0018904</b>	DJJ0010139	DJJ0001719
Sample Date		Client Info		<b>11 Feb 2024</b>	21 Apr 2021	02 Oct 2020
Machine Age	hrs	Client Info		<b>0</b>	4876	4359
Oil Age	hrs	Client Info		<b>0</b>	250	500
Filter Age	hrs	Client Info		<b>0</b>	250	500
Oil Changed		Client Info		<b>N/A</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	ATTENTION	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>6</b>	2	5
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>10	<b>2</b>	0	<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>	1	5
Lead	ppm	ASTM D5185m	>20	<b>0</b>	<1	2
Copper	ppm	ASTM D5185m	>15	<b>0</b>	<1	<1
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

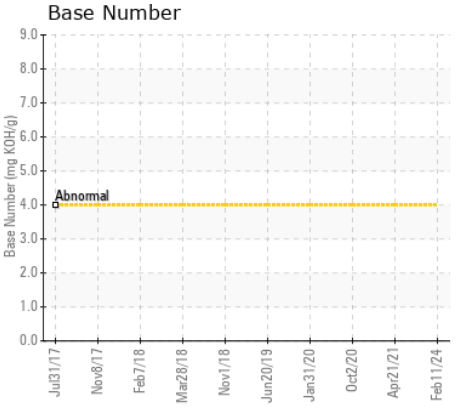
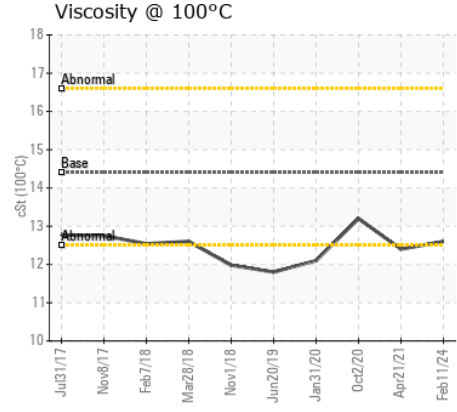
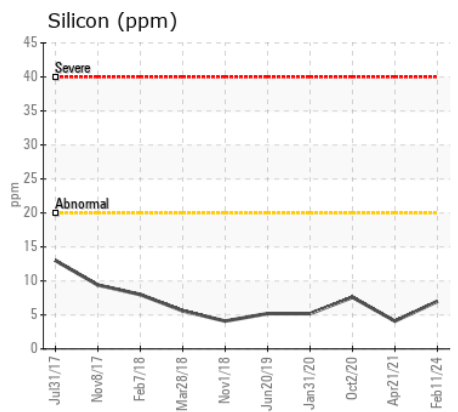
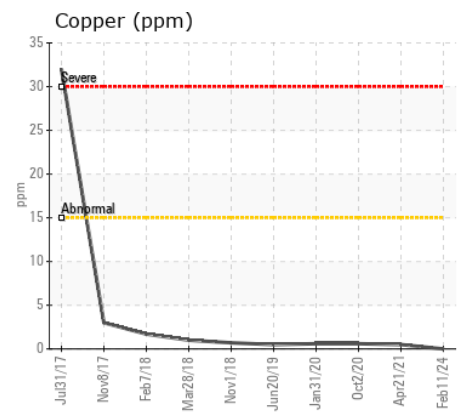
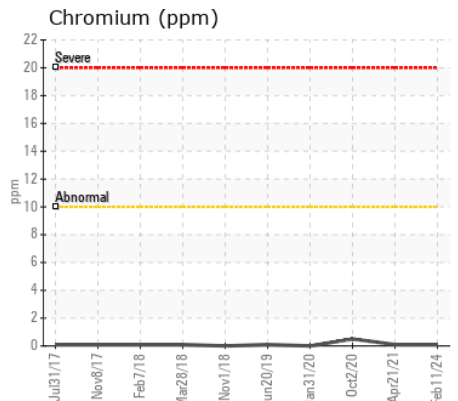
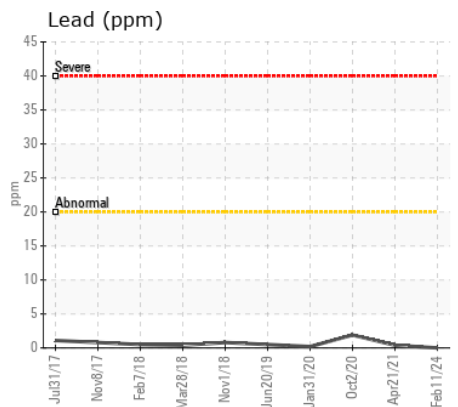
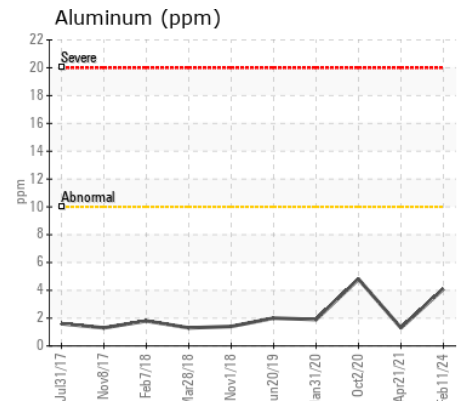
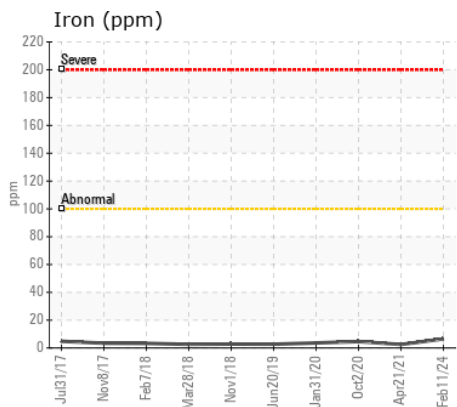
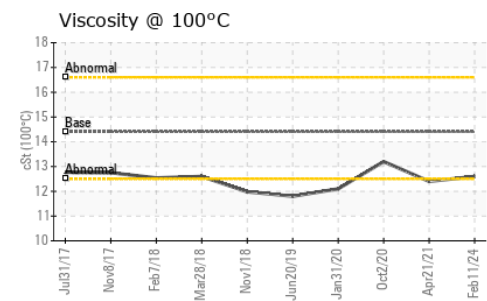
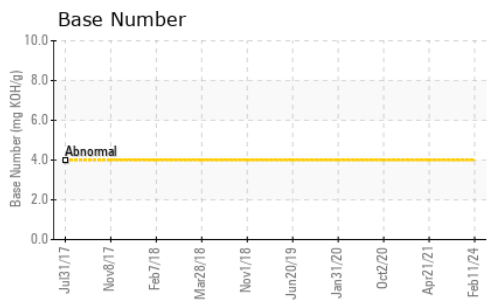
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	<b>7</b>	4	8
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	1.3	<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>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.0</b>	6.7	6.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.0</b>	21.2	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	>50	<b>1</b>	0	2
Boron	ppm	ASTM D5185m		<b>301</b>	419	297
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>120</b>	77	116
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>675</b>	378	551
Calcium	ppm	ASTM D5185m		<b>1441</b>	1295	1457
Phosphorus	ppm	ASTM D5185m		<b>724</b>	899	676
Zinc	ppm	ASTM D5185m		<b>809</b>	1045	809
Sulfur	ppm	ASTM D5185m		<b>2379</b>	2608	2060
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.2</b>	14.9	16.2
Base Number (BN)	mg KOH/g	ASTM D2896		<b>8.4</b>	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	<b>12.6</b>	▲ 12.4	13.2



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DJJ0018904 **Received** : 12 Feb 2024  
**Lab Number** : 06085853 **Tested** : 13 Feb 2024  
**Unique Number** : 10873298 **Diagnosed** : 13 Feb 2024 - Wes Davis  
**Test Package** : MOBCE ( Additional Tests: TBN )

**TEXAS PORT RECYCLING - HOUSTON PORT**  
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Certificate L2367  
 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)