



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

Machine Id  
**VOLVO CX160D NHS7F1407**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0219777</b>	---	---
Sample Date		Client Info		<b>24 Jun 2024</b>	---	---
Machine Age	hrs	Client Info		<b>4523</b>	---	---
Oil Age	hrs	Client Info		<b>0</b>	---	---
Filter Age	hrs	Client Info		<b>0</b>	---	---
Oil Changed		Client Info		<b>Changed</b>	---	---
Filter Changed		Client Info		<b>Changed</b>	---	---
Sample Status				<b>NORMAL</b>	---	---

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>5</b>	---	---
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	---	---
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	---	---
Titanium	ppm	ASTM D5185m		<b>0</b>	---	---
Silver	ppm	ASTM D5185m	>2	<b>0</b>	---	---
Aluminum	ppm	ASTM D5185m	>25	<b>6</b>	---	---
Lead	ppm	ASTM D5185m	>40	<b>0</b>	---	---
Copper	ppm	ASTM D5185m	>330	<b>12</b>	---	---
Tin	ppm	ASTM D5185m	>15	<b>0</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	---	---
White Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	---	---

### CONTAMINATION

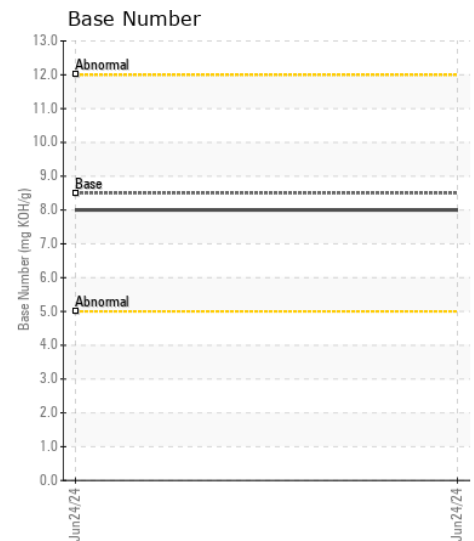
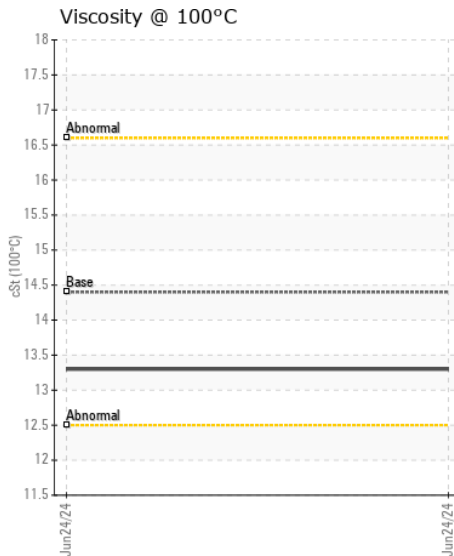
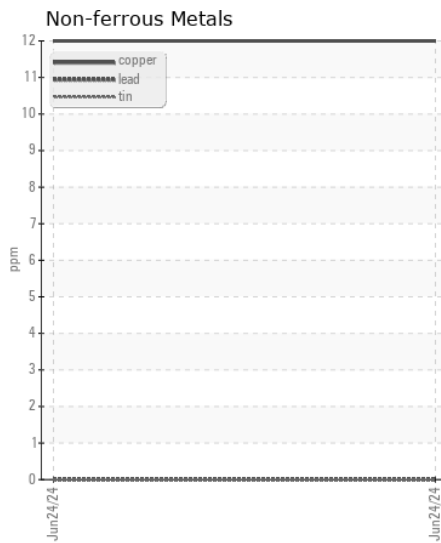
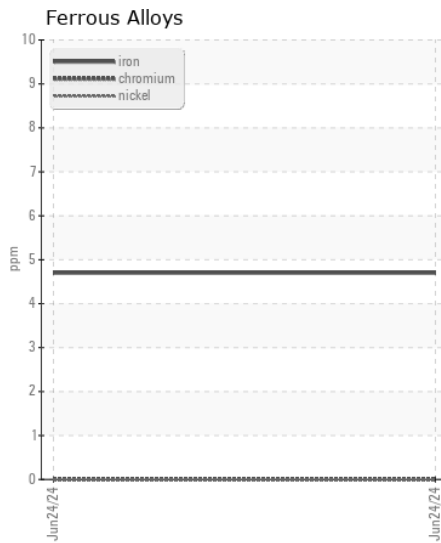
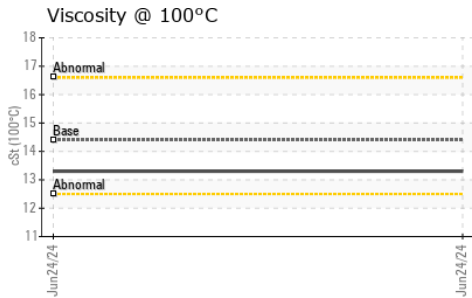
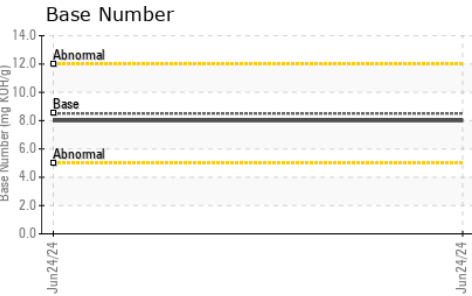
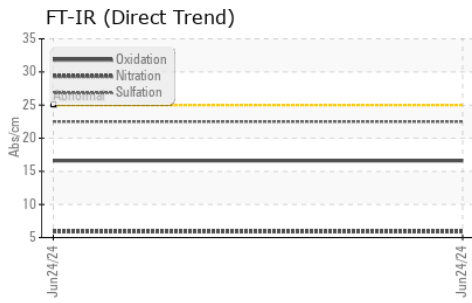
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>12</b>	---	---
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	---	---
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	---	---
Water		WC Method	>0.2	<b>NEG</b>	---	---
Glycol		WC Method		<b>NEG</b>	---	---
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	---	---
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.9</b>	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.5</b>	---	---
Silt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Debris	scalar	*Visual	NONE	<b>NONE</b>	---	---
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	---	---
Appearance	scalar	*Visual	NORML	<b>NORML</b>	---	---
Odor	scalar	*Visual	NORML	<b>NORML</b>	---	---
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	---	---

### 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	>216	<b>2</b>	---	---
Boron	ppm	ASTM D5185m	250	<b>405</b>	---	---
Barium	ppm	ASTM D5185m	10	<b>0</b>	---	---
Molybdenum	ppm	ASTM D5185m	100	<b>108</b>	---	---
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	---	---
Magnesium	ppm	ASTM D5185m	450	<b>521</b>	---	---
Calcium	ppm	ASTM D5185m	3000	<b>1510</b>	---	---
Phosphorus	ppm	ASTM D5185m	1150	<b>970</b>	---	---
Zinc	ppm	ASTM D5185m	1350	<b>1110</b>	---	---
Sulfur	ppm	ASTM D5185m	4250	<b>3512</b>	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.6</b>	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.0</b>	---	---
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.3</b>	---	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0219777 **Received** : 26 Jun 2024  
**Lab Number** : 06220836 **Tested** : 27 Jun 2024  
**Unique Number** : 11099033 **Diagnosed** : 27 Jun 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**JRE - CHARLOTTE**  
 9550 STATESVILLE ROAD  
 CHARLOTTE, NC  
 US 28269

Contact: CHARLOTTE SHOP  
 myoung@jamesriverequipment.com

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)

T: (704)597-0211

F: (704)596-6198