



# OIL ANALYSIS REPORT

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

Machine Id  
**VOLVO 128904**  
Component  
**Front Diesel Engine**  
Fluid  
**SAE 15W40 (11 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>KLMFA09315</b>	KLMFA13345	KLMFA12045
Sample Date		Client Info		<b>07 Feb 2015</b>	13 Dec 2014	01 Nov 2014
Machine Age	mls	Client Info		<b>822369</b>	799665	768522
Oil Age	mls	Client Info		<b>405138</b>	382346	351203
Filter Age	mls	Client Info		<b>405138</b>	382346	351203
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>95</b>	121	164
Chromium	ppm	ASTM D5185m	>20	<b>2</b>	2	3
Nickel	ppm	ASTM D5185m	>2	<b>2</b>	2	3
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>7</b>	7	8
Lead	ppm	ASTM D5185m	>40	<b>27</b>	19	21
Copper	ppm	ASTM D5185m	>330	<b>8</b>	11	17
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	4	0
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

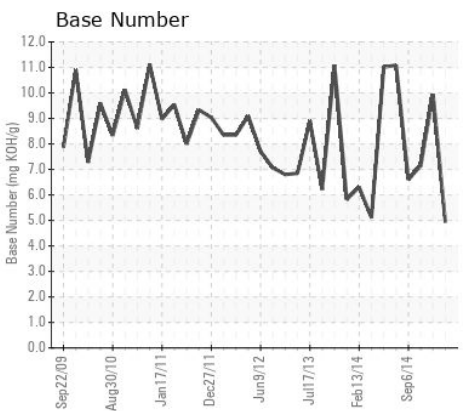
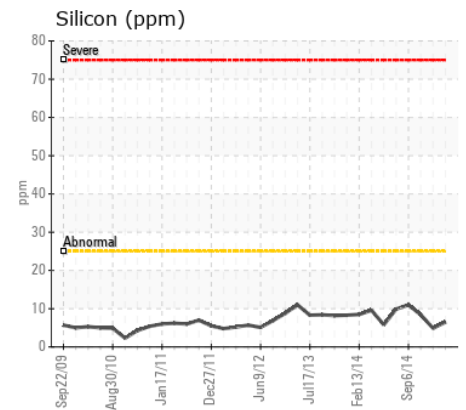
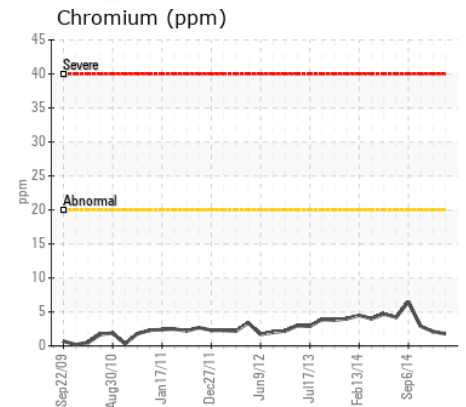
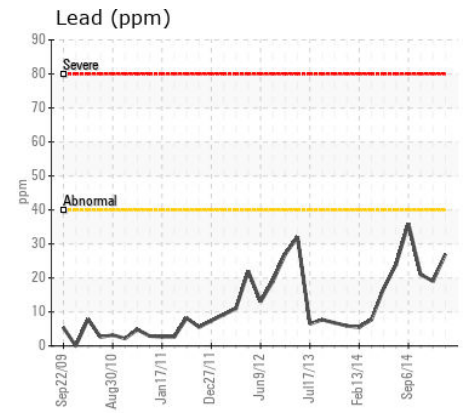
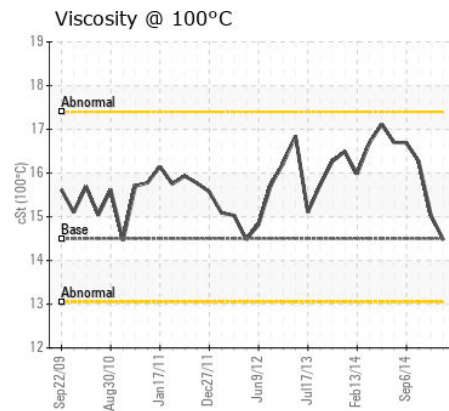
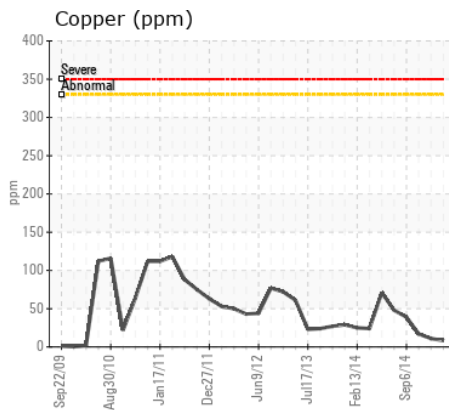
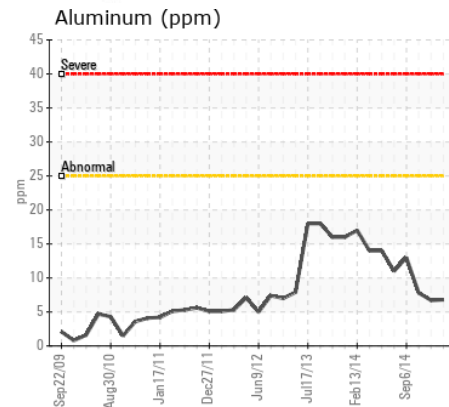
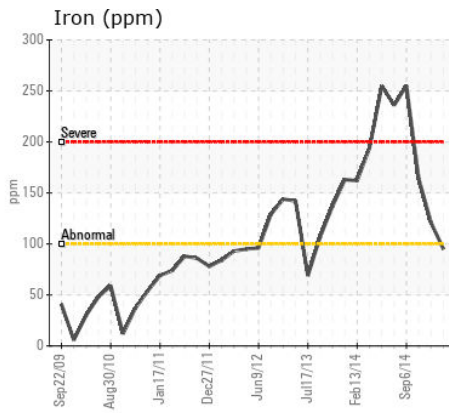
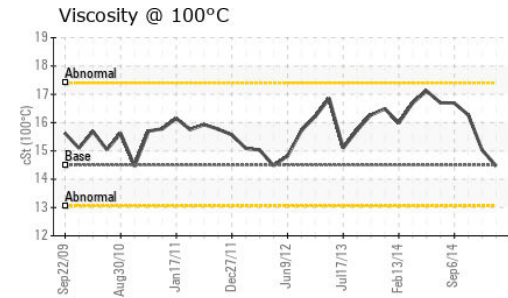
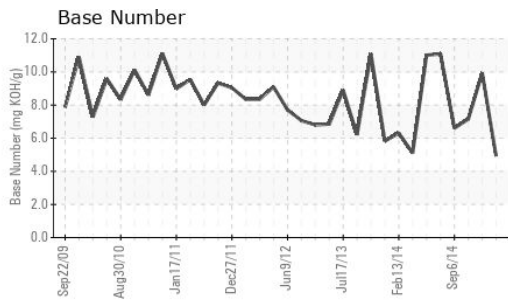
There is no indication of any contamination in the component.

Silicon	ppm	ASTM D5185m	>25	<b>6</b>	5	8
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	2	14
Fuel		WC Method	>6.0	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>2.2</b>	0.8	2.2
Nitration	Abs/cm	*ASTM D7624		<b>11.</b>	5.	8.
Sulfation	Abs/.1mm	*ASTM D7415		<b>28.</b>	16.	21.
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>5</b>	4	5
Boron	ppm	ASTM D5185m		<b>124</b>	105	101
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>84</b>	89	92
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	2
Magnesium	ppm	ASTM D5185m		<b>382</b>	372	426
Calcium	ppm	ASTM D5185m		<b>1708</b>	1665	1878
Phosphorus	ppm	ASTM D5185m		<b>1090</b>	1021	1131
Zinc	ppm	ASTM D5185m		<b>1216</b>	1088	1336
Sulfur	ppm	ASTM D5185m		<b>3054</b>	2811	3049
Oxidation	Abs/.1mm	*ASTM D7414		<b>24.</b>	9.	15.
Base Number (BN)	mg KOH/g	ASTM D2896		<b>4.93</b>	9.94	7.15
Visc @ 100°C	cSt	ASTM D445	14.5	<b>14.47</b>	15.03	16.27



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KLMFA09315 **Received** : 16 Feb 2015  
**Lab Number** : 03684256 **Diagnosed** : 19 Feb 2015  
**Unique Number** : 6912253 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 2

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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)