



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**FREIGHTLINER 110910**

Component  
**Front Diesel Engine**

Fluid  
**CHEVRON DELO 400 MULTIGRADE 15W40 (10 GAL)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>KLMFA13348</b>	KLMFA13378	KLMFA13292
Sample Date		Client Info		<b>17 Nov 2014</b>	04 Nov 2014	08 Sep 2014
Machine Age	mls	Client Info		<b>1367227</b>	1359301	1328983
Oil Age	mls	Client Info		<b>159622</b>	151696	121378
Filter Age	mls	Client Info		<b>159622</b>	151696	121378
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>	ABNORMAL	ABNORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>125	<b>113</b>	▲ 131	104
Chromium	ppm	ASTM D5185m	>10	<b>4</b>	5	5
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>4</b>	6	8
Lead	ppm	ASTM D5185m	>30	<b>23</b>	26	25
Copper	ppm	ASTM D5185m	>65	<b>15</b>	18	16
Tin	ppm	ASTM D5185m	>4	<b>2</b>	0	2
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

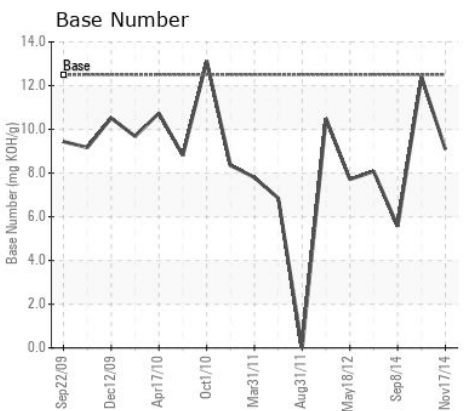
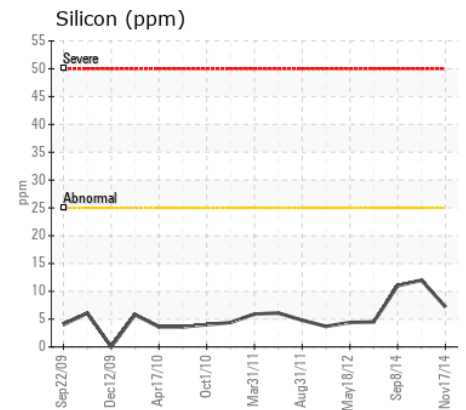
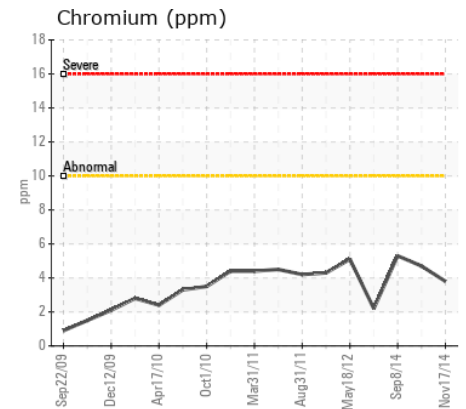
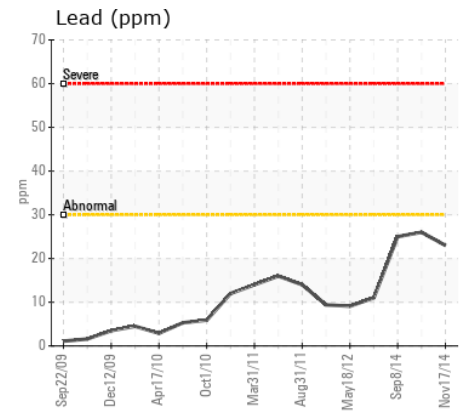
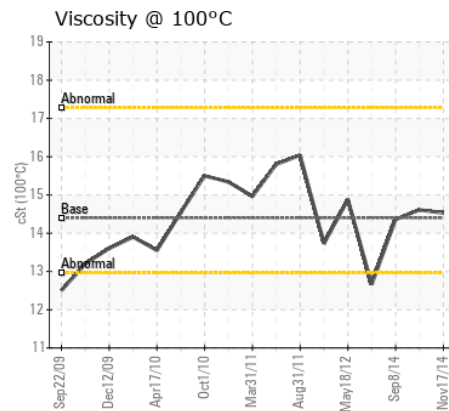
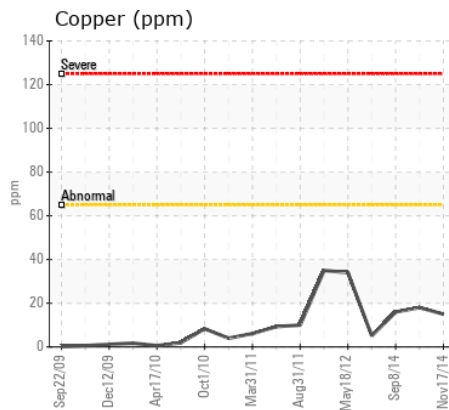
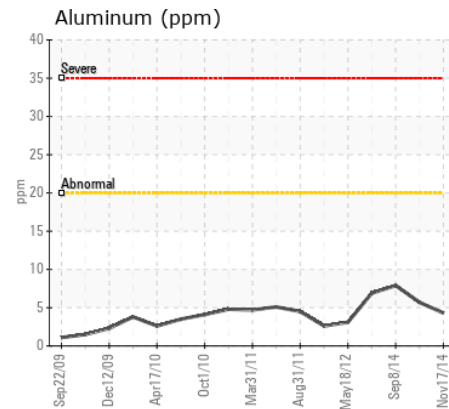
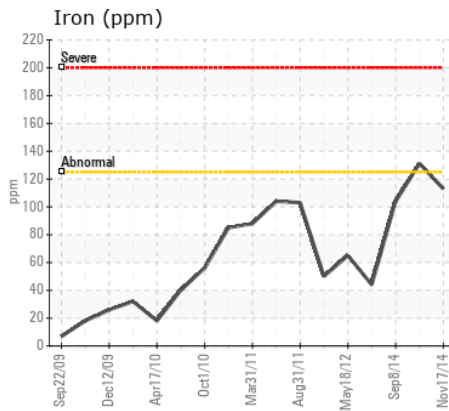
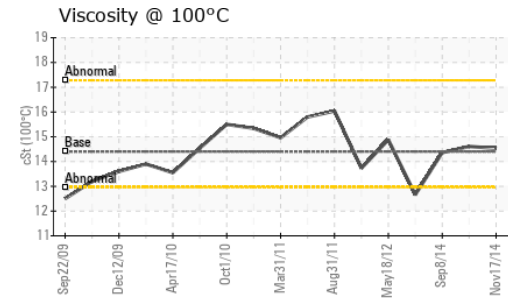
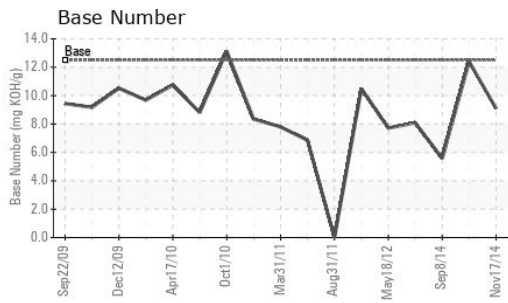
There is no indication of any contamination in the component.

Silicon	ppm	ASTM D5185m	>25	<b>7</b>	12	11
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	5	0
Fuel		WC Method	>3.0	<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>2.5</b>	0.4	▲ 3.6
Nitration	Abs/cm	*ASTM D7624		<b>8.</b>	3.	11.
Sulfation	Abs/.1mm	*ASTM D7415		<b>22.</b>	12.	29.
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>4</b>	5	5
Boron	ppm	ASTM D5185m	151	<b>106</b>	69	106
Barium	ppm	ASTM D5185m	0.4	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m	250	<b>81</b>	78	95
Manganese	ppm	ASTM D5185m		<b>1</b>	1	1
Magnesium	ppm	ASTM D5185m	0	<b>392</b>	392	372
Calcium	ppm	ASTM D5185m	2046	<b>1800</b>	1810	1769
Phosphorus	ppm	ASTM D5185m	1043	<b>1105</b>	1035	1122
Zinc	ppm	ASTM D5185m	943	<b>1169</b>	1294	1293
Sulfur	ppm	ASTM D5185m	5012	<b>3903</b>	3309	1471
Oxidation	Abs/.1mm	*ASTM D7414		<b>14.</b>	5.	19.
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	<b>9.09</b>	12.39	5.57
Visc @ 100°C	cSt	ASTM D445	14.4	<b>14.53</b>	14.61	14.36



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KLMFA13348 **Received** : 24 Nov 2014  
**Lab Number** : 03631822 **Diagnosed** : 25 Nov 2014  
**Unique Number** : 6824800 **Diagnostician** : Wes Davis  
**Test Package** : MOB 2

**EDAN FARMS INC.**  
 13549 WOODWORTH RD.  
 NEW SPRINGFIELD, OH  
 US 44443  
 Contact: ERIC SCHAEFER  
 leslie.edan@zoominternet.net  
 T: (330)549-5567  
 F: (330)549-0255

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)