



# OIL ANALYSIS REPORT

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

Area  
**Store 9 - Marietta**

Machine Id  
**PETERBILT 88**

Component  
**Diesel Engine**

Fluid  
**SHELL ROTELLA T 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>LEC0048142</b>	LEC0045816	LEC0045843
Sample Date		Client Info		<b>10 Mar 2024</b>	15 Jan 2024	08 Nov 2023
Machine Age	hrs	Client Info		<b>49520</b>	49103	48692
Oil Age	hrs	Client Info		<b>400</b>	400	400
Filter Age	hrs	Client Info		<b>400</b>	400	400
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	>110	<b>13</b>	17	9
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>4</b>	3	4
Lead	ppm	ASTM D5185m	>45	<b>11</b>	15	8
Copper	ppm	ASTM D5185m	>85	<b>1</b>	2	0
Tin	ppm	ASTM D5185m	>4	<b>1</b>	2	<1
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

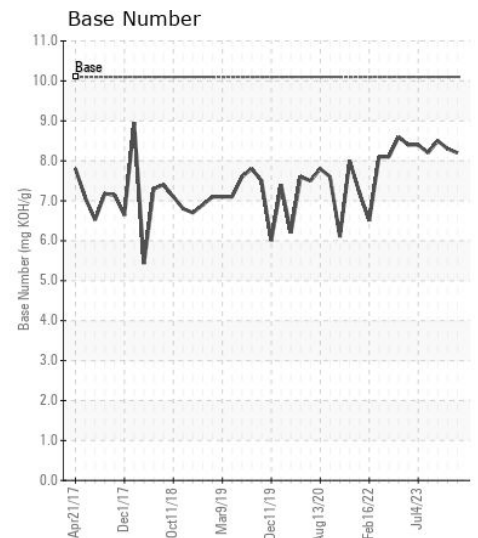
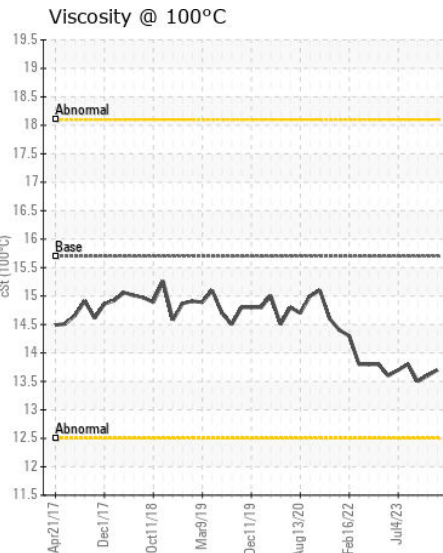
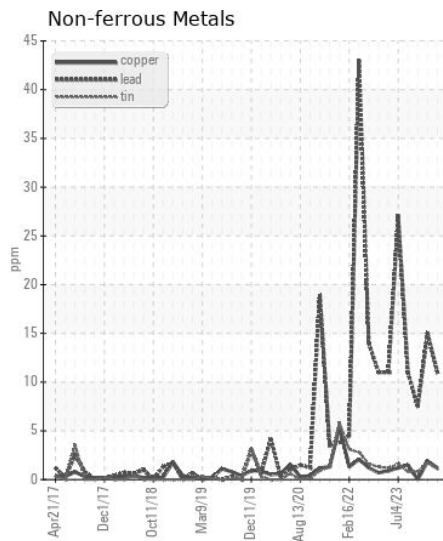
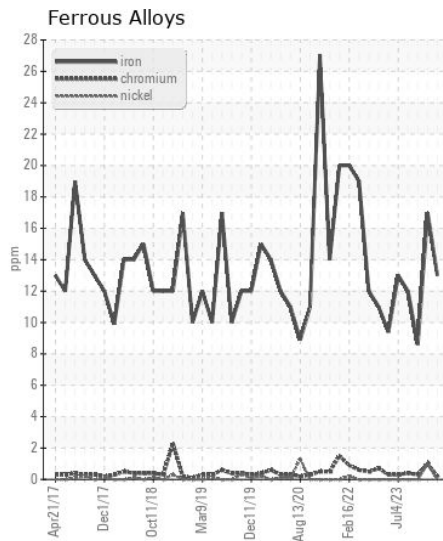
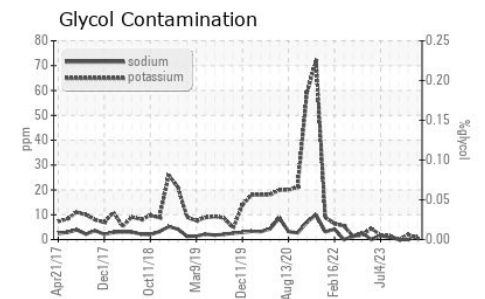
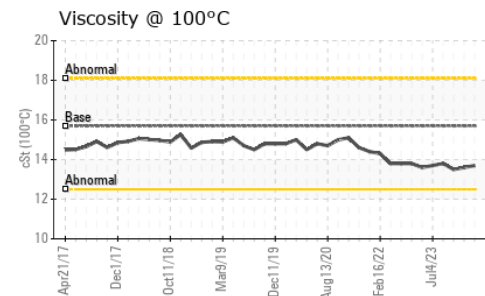
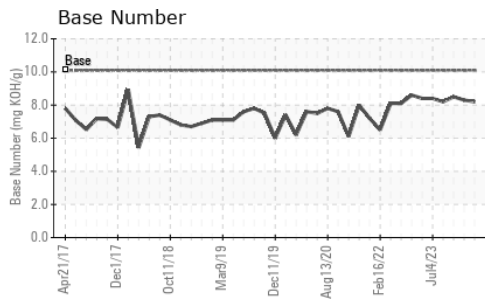
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>120	<b>6</b>	8	5
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	0
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	%	*ASTM D2982		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.7</b>	0.8	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.0</b>	10.4	9.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.6</b>	25.6	24.9
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>1</b>	0	0
Boron	ppm	ASTM D5185m	316	<b>252</b>	285	254
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	1	0
Molybdenum	ppm	ASTM D5185m	1.2	<b>131</b>	133	125
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m	24	<b>693</b>	679	701
Calcium	ppm	ASTM D5185m	2292	<b>1597</b>	1510	1545
Phosphorus	ppm	ASTM D5185m	1064	<b>743</b>	752	780
Zinc	ppm	ASTM D5185m	1160	<b>906</b>	883	920
Sulfur	ppm	ASTM D5185m	4996	<b>2931</b>	2767	2574
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.2</b>	20.0	19.1
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>8.2</b>	8.3	8.5
Visc @ 100°C	cSt	ASTM D445	15.7	<b>13.7</b>	13.6	13.5



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0048142 **Received** : 20 Mar 2024  
**Lab Number** : 06124165 **Tested** : 23 Mar 2024  
**Unique Number** : 10938316 **Diagnosed** : 23 Mar 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: Glycol, TBN )

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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)