



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id  
**PETERBILT 4340**

Component  
**Diesel Engine**

Fluid  
**SHELL ROTELLA T 15W40 (--- QTS)**

## RECOMMENDATION

We advise that you check for possible coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>KL0007269</b>	KL0007308	KL0007337
Sample Date		Client Info		<b>01 Jun 2023</b>	03 May 2023	14 Apr 2023
Machine Age	hrs	Client Info		<b>10627</b>	10346	10154
Oil Age	hrs	Client Info		<b>281</b>	2500	2298
Filter Age	hrs	Client Info		<b>281</b>	2500	2298
Oil Changed		Client Info		<b>Not Changd</b>	Changed	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Changed	Not Changd
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	<b>32</b>	53	38
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	1	1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>3</b>	14	1
Lead	ppm	ASTM D5185m	>150	<b>1</b>	3	3
Copper	ppm	ASTM D5185m	>90	<b>&lt;1</b>	3	1
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	2	<1
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

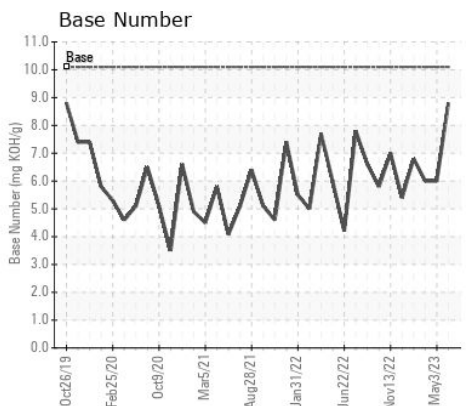
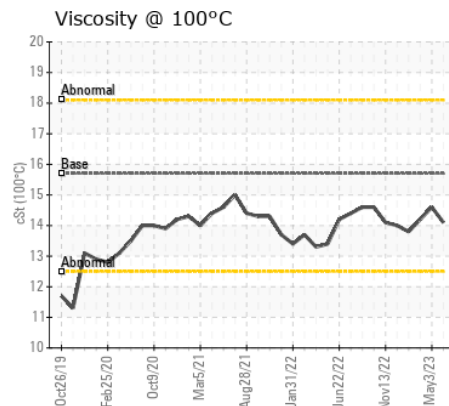
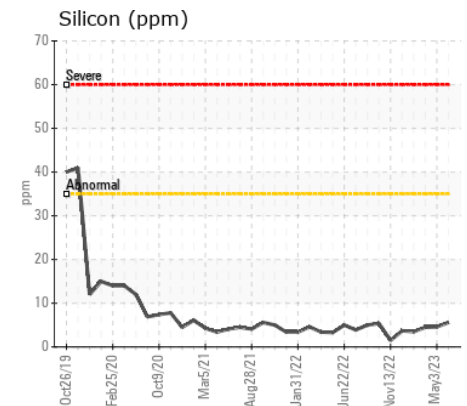
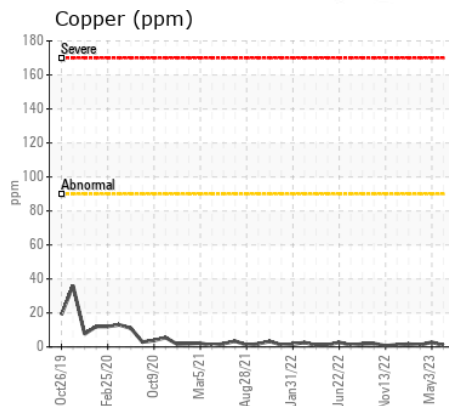
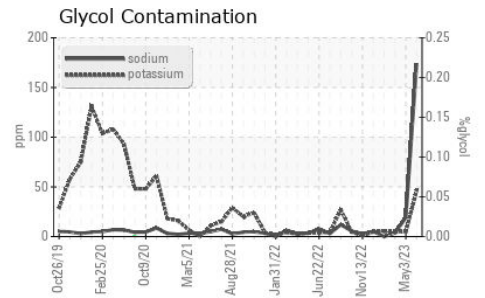
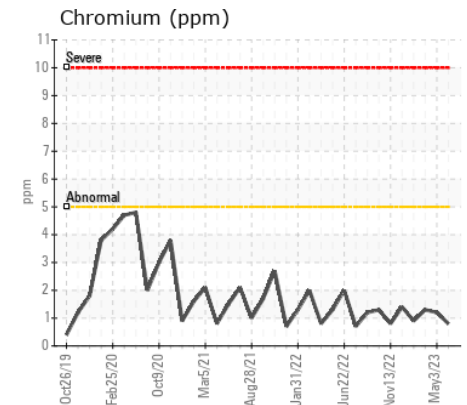
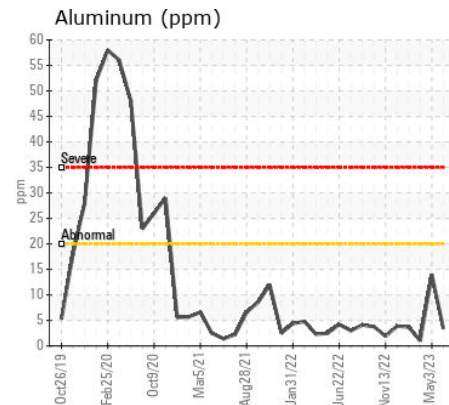
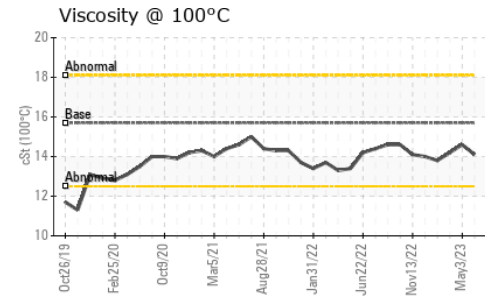
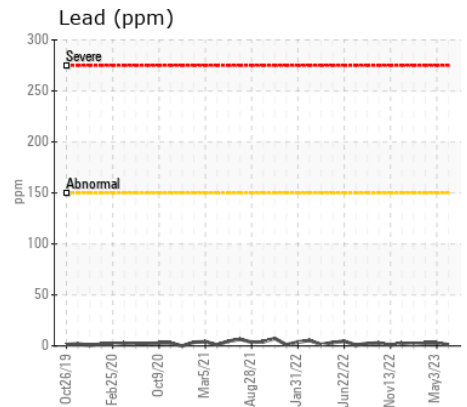
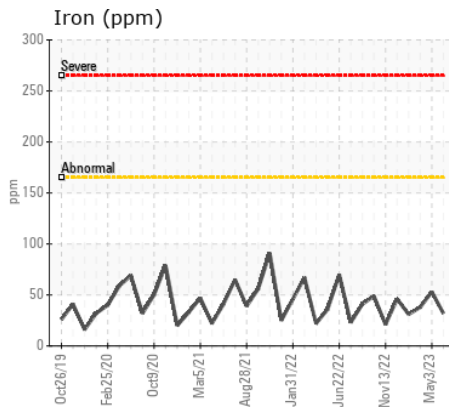
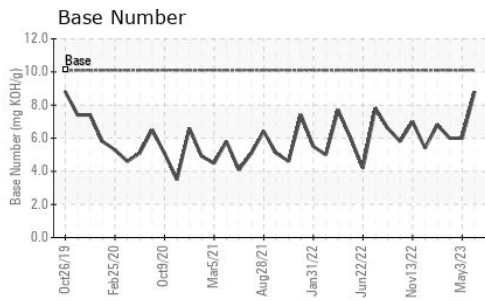
Sodium and/or potassium levels are high.

Silicon	ppm	ASTM D5185m	>35	<b>6</b>	5	4
Potassium	ppm	ASTM D5185m	>20	<b>▲ 46</b>	5	5
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	%	*ASTM D2982		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>7.5	<b>0.8</b>	1.2	1
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.0</b>	12.8	12.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.6</b>	30.0	28.8
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.

Sodium	ppm	ASTM D5185m		<b>▲ 174</b>	19	4
Boron	ppm	ASTM D5185m	316	<b>25</b>	41	37
Barium	ppm	ASTM D5185m	0.0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	1.2	<b>69</b>	33	30
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	1
Magnesium	ppm	ASTM D5185m	24	<b>499</b>	309	288
Calcium	ppm	ASTM D5185m	2292	<b>1653</b>	1957	1955
Phosphorus	ppm	ASTM D5185m	1064	<b>1030</b>	1010	1025
Zinc	ppm	ASTM D5185m	1160	<b>1306</b>	1295	1317
Sulfur	ppm	ASTM D5185m	4996	<b>3736</b>	3374	3764
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.2</b>	27.5	26.2
Base Number (BN)	mg KOH/g	ASTM D2896	10.1	<b>8.8</b>	6	6
Visc @ 100°C	cSt	ASTM D445	15.7	<b>14.1</b>	14.6	14.2



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0007269 **Received** : 05 Jun 2023  
**Lab Number** : 05863837 **Tested** : 07 Jun 2023  
**Unique Number** : 10498302 **Diagnosed** : 07 Jun 2023 - Jonathan Hester  
**Test Package** : MOB1+ ( Additional Tests: Glycol )

**J & E TRUCKING**  
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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)

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