



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION

Area  
**[43027406]**  
 Machine Id  
**PETERBILT 957-1987 Rental Unit**  
 Component  
**Diesel Engine**  
 Fluid  
**MOBIL DELVAC MX 15W40 (42 QTS)**

## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>RPL0016418</b>	RPL0013675	RPL0013579
Sample Date		Client Info		<b>06 Feb 2024</b>	23 Oct 2023	18 Aug 2023
Machine Age	mls	Client Info		<b>37464</b>	13455	4405
Oil Age	mls	Client Info		<b>37464</b>	13455	4405
Filter Age	mls	Client Info		<b>37464</b>	13455	4405
Oil Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>90	<b>90</b>	46	39
Chromium	ppm	ASTM D5185m	>20	<b>3</b>	2	1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	1	<1
Aluminum	ppm	ASTM D5185m	>20	<b>40</b>	28	22
Lead	ppm	ASTM D5185m	>40	<b>5</b>	4	2
Copper	ppm	ASTM D5185m	>330	<b>30</b>	29	20
Tin	ppm	ASTM D5185m	>15	<b>3</b>	3	2
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

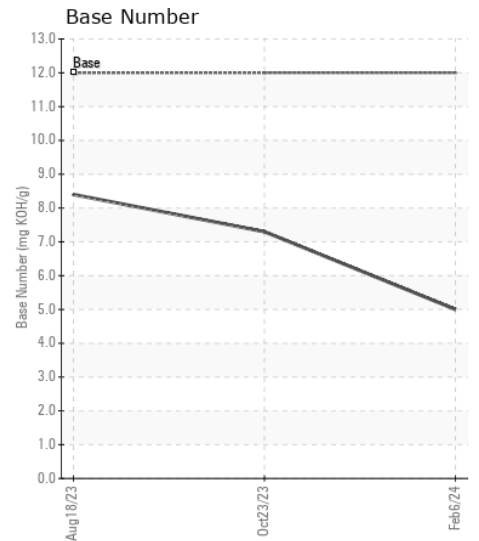
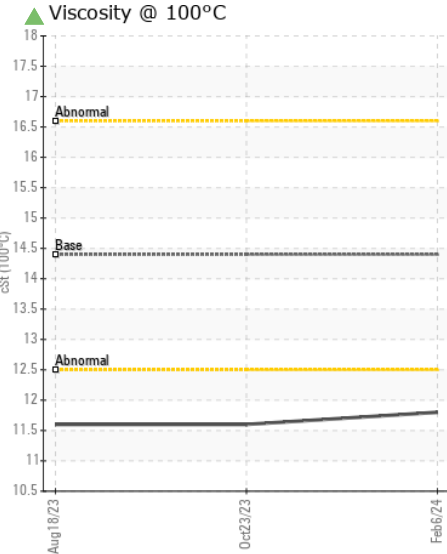
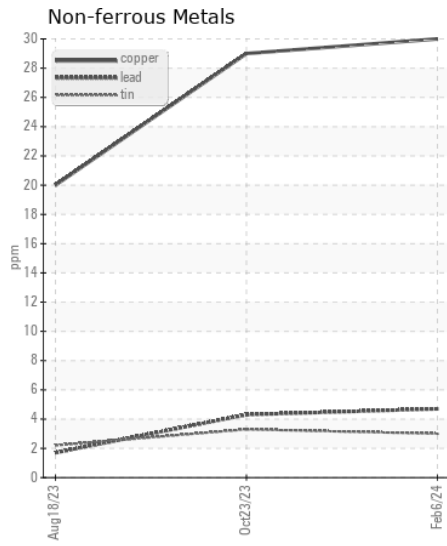
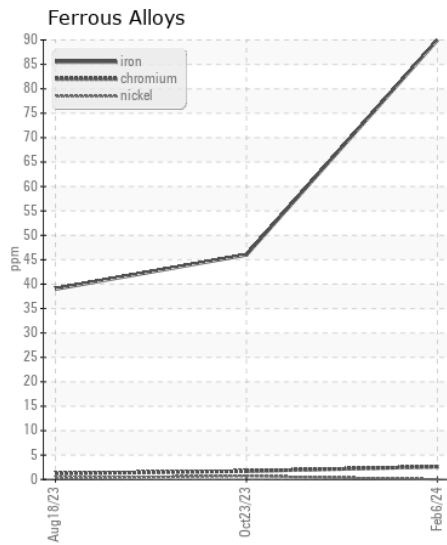
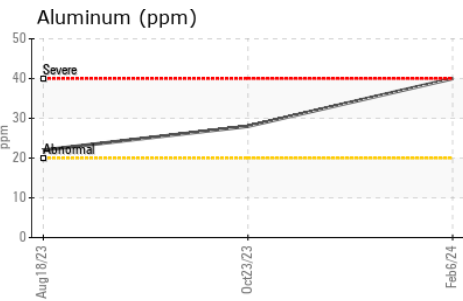
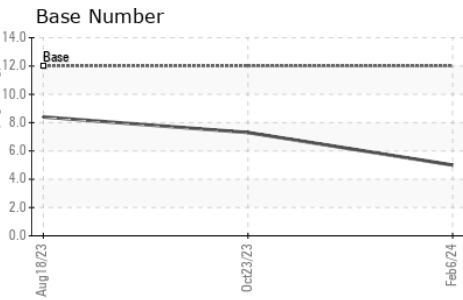
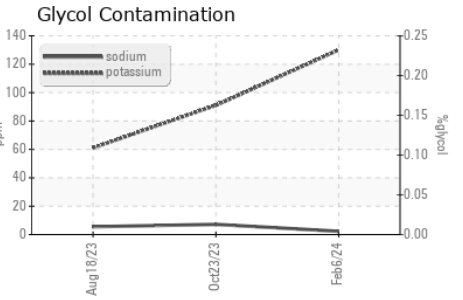
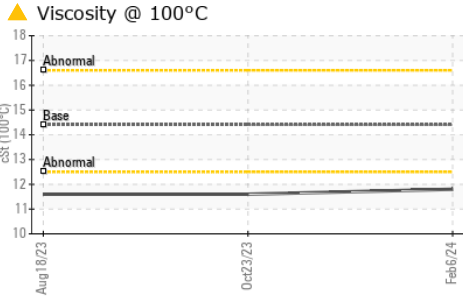
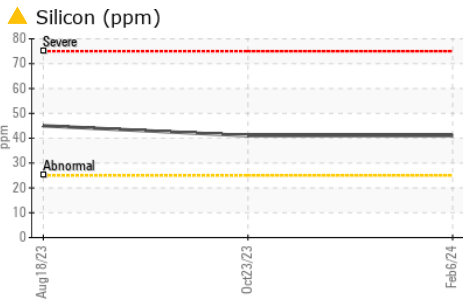
Elemental level of silicon (Si) above normal indicating ingress of seal material. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components.

Silicon	ppm	ASTM D5185m	>25	<b>▲ 41</b>	▲ 41	▲ 45
Potassium	ppm	ASTM D5185m	>20	<b>130</b>	91	61
Fuel		WC Method	>3.0	<b>&lt;1.0</b>	<1.0	0.4
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>6	<b>0.3</b>	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.0</b>	9.2	7.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.4</b>	19.2	17.8
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		<b>2</b>	7	6
Boron	ppm	ASTM D5185m		<b>32</b>	45	106
Barium	ppm	ASTM D5185m		<b>12</b>	3	0
Molybdenum	ppm	ASTM D5185m		<b>23</b>	11	11
Manganese	ppm	ASTM D5185m		<b>6</b>	6	6
Magnesium	ppm	ASTM D5185m		<b>695</b>	710	787
Calcium	ppm	ASTM D5185m		<b>1171</b>	1153	1384
Phosphorus	ppm	ASTM D5185m		<b>658</b>	705	746
Zinc	ppm	ASTM D5185m		<b>812</b>	795	869
Sulfur	ppm	ASTM D5185m		<b>2522</b>	2515	3565
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>21.1</b>	15.1	13.0
Base Number (BN)	mg KOH/g	ASTM D2896	12	<b>5.0</b>	7.3	8.4
Visc @ 100°C	cSt	ASTM D445	14.4	<b>▲ 11.8</b>	▲ 11.6	▲ 11.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RPL0016418  
**Lab Number** : 06088524  
**Unique Number** : 10875969  
**Test Package** : FLEET

**Received** : 14 Feb 2024  
**Tested** : 15 Feb 2024  
**Diagnosed** : 15 Feb 2024 - Don Baldrige

**RTL PACLEASE - 7002 - San Antonio**  
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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)