



# OIL ANALYSIS REPORT

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

Machine Id  
**PETERBILT 9571789**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL 15W40 (16 QTS)**

## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>RPL0015918</b>	RPL0000867	RPL0009495
Sample Date		Client Info		<b>16 May 2024</b>	26 Feb 2024	18 May 2023
Machine Age	mls	Client Info		<b>24658</b>	20191	3328
Oil Age	mls	Client Info		<b>4500</b>	5000	3328
Filter Age	mls	Client Info		<b>4500</b>	5000	3328
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>MARGINAL</b>	MARGINAL	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>11</b>	12	41
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	2
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	7	10
Lead	ppm	ASTM D5185m	>40	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	1	31
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</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.

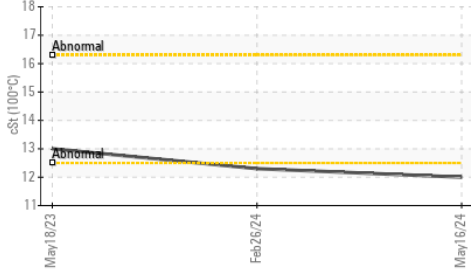
Silicon	ppm	ASTM D5185m	>25	<b>6</b>	5	▲ 31
Potassium	ppm	ASTM D5185m	>20	<b>9</b>	11	23
Fuel	%	ASTM D3524	>5	<b>&lt;1.0</b>	0.9	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.3</b>	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.4</b>	8.8	7.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>17.9</b>	18.1	23.3
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

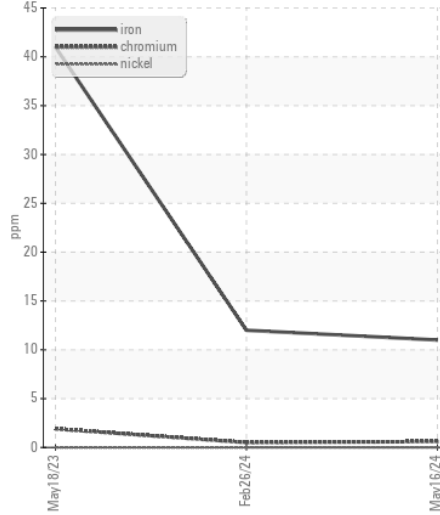
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>118	<b>1</b>	2	5
Boron	ppm	ASTM D5185m		<b>101</b>	116	264
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>122</b>	126	98
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	5
Magnesium	ppm	ASTM D5185m		<b>702</b>	666	631
Calcium	ppm	ASTM D5185m		<b>1414</b>	1237	1359
Phosphorus	ppm	ASTM D5185m		<b>783</b>	690	650
Zinc	ppm	ASTM D5185m		<b>949</b>	841	806
Sulfur	ppm	ASTM D5185m		<b>3667</b>	2955	2742
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>14.7</b>	14.6	16.8
Base Number (BN)	mg KOH/g	ASTM D2896		<b>6.8</b>	6.5	8.9
Visc @ 100°C	cSt	ASTM D445		▲ <b>12.0</b>	▲ 12.3	13.0

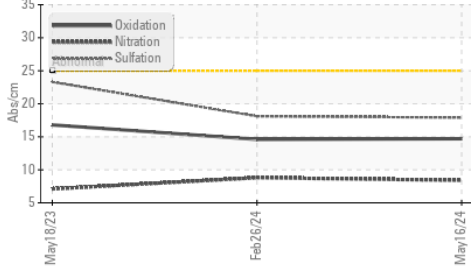
▲ Viscosity @ 100°C



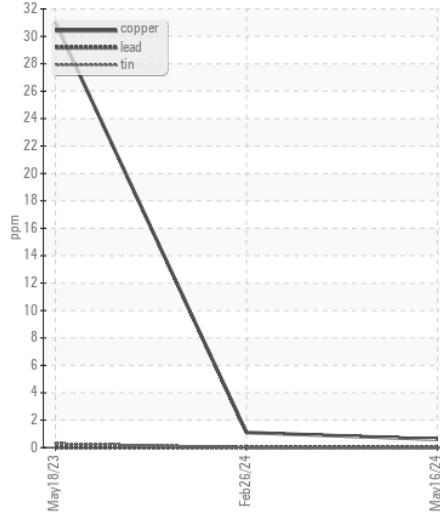
Ferrous Alloys



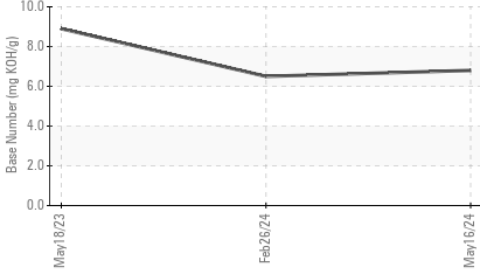
FT-IR (Direct Trend)



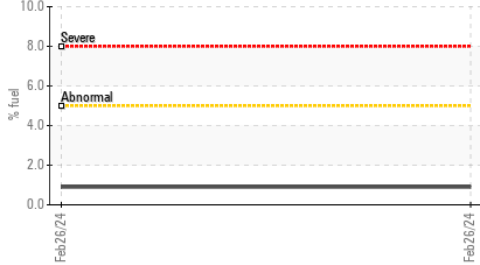
Non-ferrous Metals



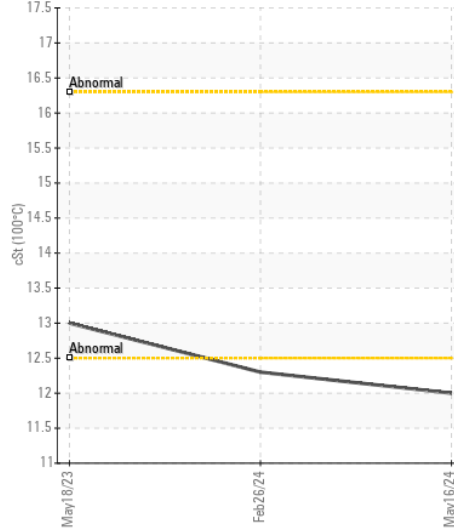
Base Number



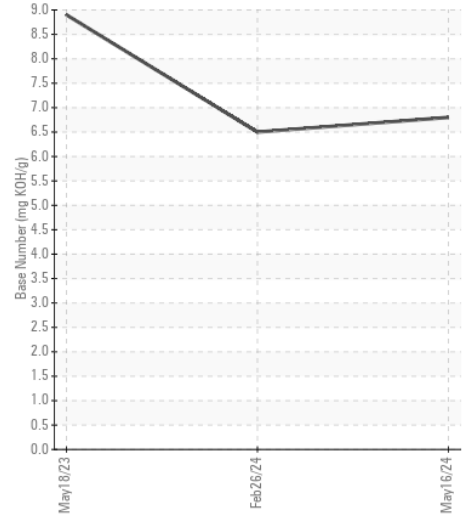
Fuel Dilution



▲ Viscosity @ 100°C



Base Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : RPL0015918 **Received** : 22 May 2024  
**Lab Number** : 06187492 **Tested** : 23 May 2024  
**Unique Number** : 11044244 **Diagnosed** : 24 May 2024 - Don Baldrige  
**Test Package** : FLEET ( Additional Tests: FuelDilution )

**RTL PACLEASE - 7004 - Austin**  
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 Austin, TX  
 US 78721  
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 F:

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)