



# OIL ANALYSIS REPORT

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

Machine Id  
**PETERBILT 21722**  
Component  
**Diesel Engine**  
Fluid  
**SHELL ROTELLA T 10W30 (48 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0909730</b>	WC0909771	WC0832013
Sample Date		Client Info		<b>08 May 2024</b>	03 Mar 2024	11 Oct 2023
Machine Age	mls	Client Info		<b>296243</b>	284775	11202
Oil Age	mls	Client Info		<b>14716</b>	13200	11202
Filter Age	mls	Client Info		<b>14716</b>	13200	11202
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>4</b>	10	8
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	<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>1</b>	3	3
Lead	ppm	ASTM D5185m	>45	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>85	<b>0</b>	0	<1
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	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.

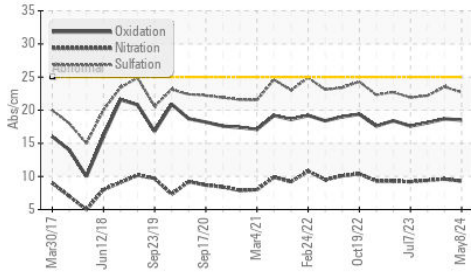
Silicon	ppm	ASTM D5185m	>30	<b>4</b>	5	6
Potassium	ppm	ASTM D5185m	>20	<b>8</b>	12	9
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.3	0.2
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.3</b>	9.6	9.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.7</b>	23.5	22.2
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

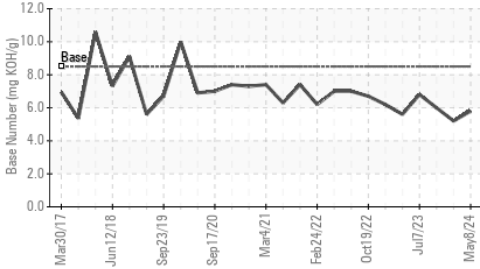
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<b>1</b>	2	2
Boron	ppm	ASTM D5185m	269	<b>129</b>	105	88
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>1</b>	7	13
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	20	<b>29</b>	63	90
Calcium	ppm	ASTM D5185m	1521	<b>2264</b>	2082	2122
Phosphorus	ppm	ASTM D5185m	948	<b>1008</b>	969	835
Zinc	ppm	ASTM D5185m	893	<b>1212</b>	1207	1185
Sulfur	ppm	ASTM D5185m		<b>3836</b>	3288	3174
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.5</b>	18.7	18.1
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>5.8</b>	5.2	6.0
Visc @ 100°C	cSt	ASTM D445	11.0	<b>12.0</b>	11.9	12.2

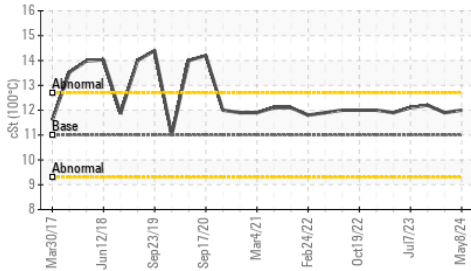
**FT-IR (Direct Trend)**



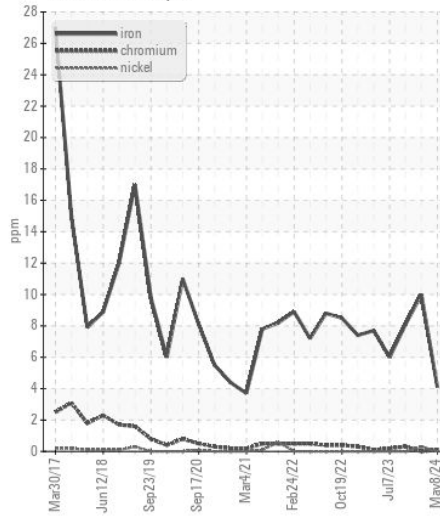
**Base Number**



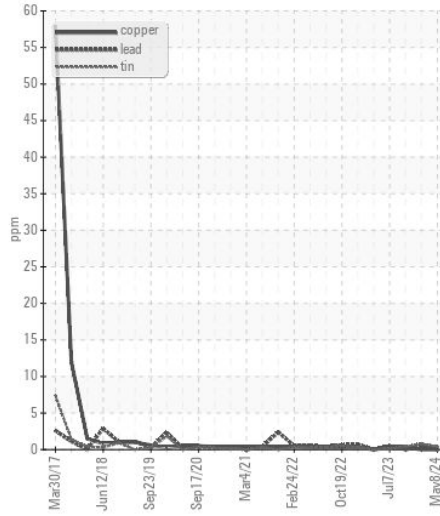
**Viscosity @ 100°C**



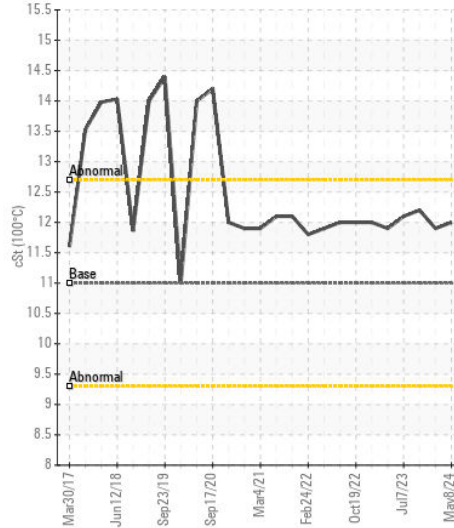
**Ferrous Alloys**



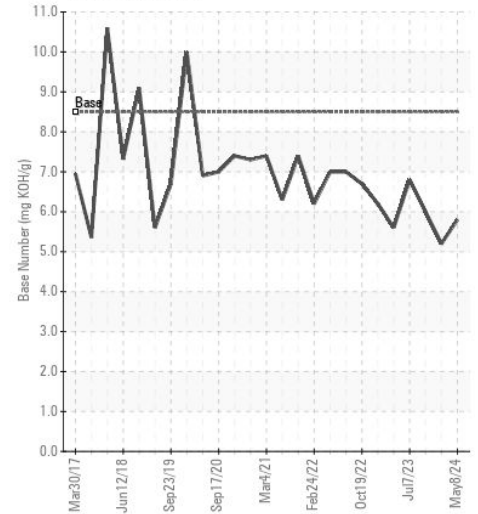
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0909730  
**Lab Number** : 06178458  
**Unique Number** : 11029784  
**Test Package** : FLEET

**Received** : 14 May 2024  
**Tested** : 15 May 2024  
**Diagnosed** : 16 May 2024 - Sean Felton

**GUY M TURNER & TURNER TRANSFER**  
 4505 SOUTH HOLDEN ROAD  
 GREENSBORO, NC  
 US 27406

Contact: ROGER HIXSON  
 rhixson@guyturner.com  
 T: (336)294-4660  
 F: (336)294-6644

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)