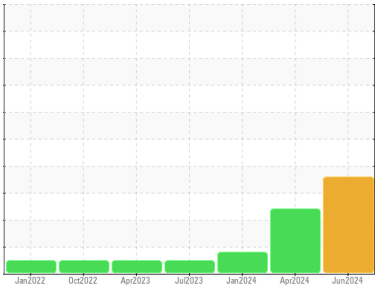
PROBLEM SUMMARY

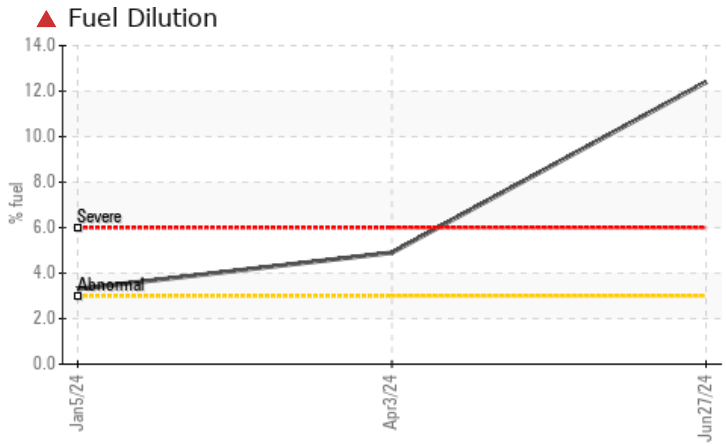
Sample Rating Trend

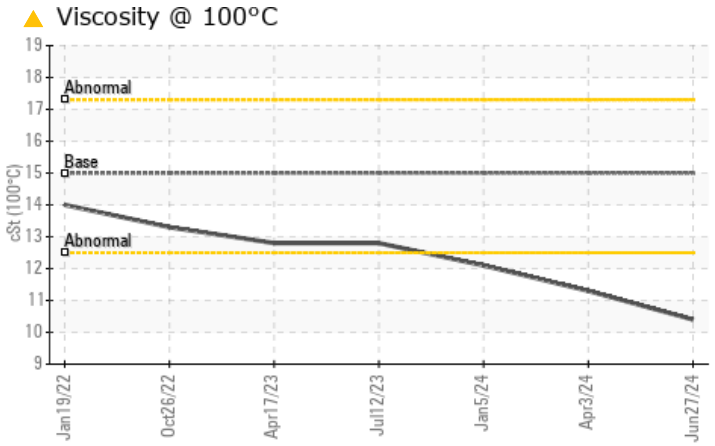


FUEL

Machine Id
PETERBILT 8464531
Component
Diesel Engine
Fluid
MOBIL DELVAC 1 5W40 (46 GAL)

COMPONENT CONDITION SUMMARY





RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	MARGINAL
Fuel	%	ASTM D3524	>3.0	▲ **12.4**	▲ 4.9	▲ 3.3
Base Number (BN)	mg KOH/g	ASTM D2896	11.0	▲ **1.7**	▲ 3.7	7.4
Visc @ 100°C	cSt	ASTM D445	15.0	▲ **10.4**	▲ 11.3	12.1

Customer Id: PAC7006
Sample No.: RPL0021908
Lab Number: 06234470
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Sean Felton +1 919-379-4092
sfelton@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Fuel/injector System	---	---	?	We advise that you check the fuel injection system.

HISTORICAL DIAGNOSIS

DEGRADATION

03 Apr 2024 Diag: Jonathan Hester
We advise that you check the fuel injection system. The oil is near the end of it`s useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.All component wear rates are normal. There is a moderate amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN level is low.

view report

FUEL

05 Jan 2024 Diag: Wes Davis
No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

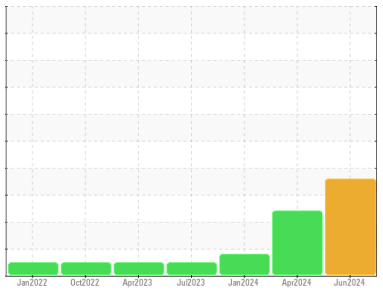
NORMAL

12 Jul 2023 Diag: Don Baldridge
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



FUEL

Machine Id
PETERBILT 8464531
Component
Diesel Engine
Fluid
MOBIL DELVAC 1 5W40 (46 GAL)

DIAGNOSIS

Recommendation
We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Wear
All component wear rates are normal.

Contamination
There is a high amount of fuel present in the oil.

Fluid Condition
Fuel is present in the oil and is lowering the viscosity. The BN level is low.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**RPL0021908**	RPL0019367	RPL0017409
Sample Date		Client Info		**27 Jun 2024**	03 Apr 2024	05 Jan 2024
Machine Age	mls	Client Info		**162316**	154910	148185
Oil Age	mls	Client Info		**19624**	6725	5493
Oil Changed		Client Info		**Not Changd**	Not Changd	Not Changd
Sample Status				**SEVERE**	ABNORMAL	MARGINAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>165	**23**	14	6
Chromium	ppm	ASTM D5185m	>5	**2**	2	<1
Nickel	ppm	ASTM D5185m	>4	**0**	<1	0
Titanium	ppm	ASTM D5185m	>2	**0**	<1	0
Silver	ppm	ASTM D5185m	>2	**<1**	<1	0
Aluminum	ppm	ASTM D5185m	>20	**14**	12	3
Lead	ppm	ASTM D5185m	>150	**10**	6	2
Copper	ppm	ASTM D5185m	>90	**<1**	2	<1
Tin	ppm	ASTM D5185m	>5	**1**	1	0
Vanadium	ppm	ASTM D5185m		**0**	<1	<1
Cadmium	ppm	ASTM D5185m		**0**	<1	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	291	**6**	1	1
Barium	ppm	ASTM D5185m	0.0	**0**	2	0
Molybdenum	ppm	ASTM D5185m	8.0	**56**	58	55
Manganese	ppm	ASTM D5185m		**0**	<1	0
Magnesium	ppm	ASTM D5185m	624	**839**	867	920
Calcium	ppm	ASTM D5185m	2158	**985**	1032	994
Phosphorus	ppm	ASTM D5185m	1132	**870**	955	1014
Zinc	ppm	ASTM D5185m	1300	**1157**	1141	1188
Sulfur	ppm	ASTM D5185m	3616	**3313**	3172	3107

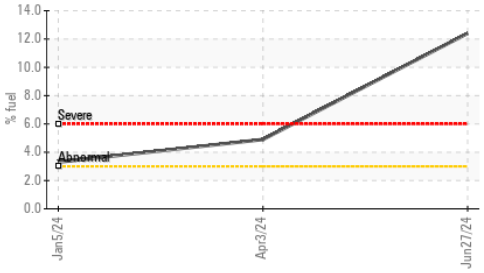
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>35	**6**	5	3
Sodium	ppm	ASTM D5185m		**2**	0	<1
Potassium	ppm	ASTM D5185m	>20	**42**	38	7
Fuel	%	ASTM D3524	>3.0	▲ **12.4**	▲ 4.9	▲ 3.3

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>7.5	**0.5**	0.4	0.2
Nitration	Abs/cm	*ASTM D7624	>20	**11.8**	10.2	7.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	**32.4**	25.8	22.6

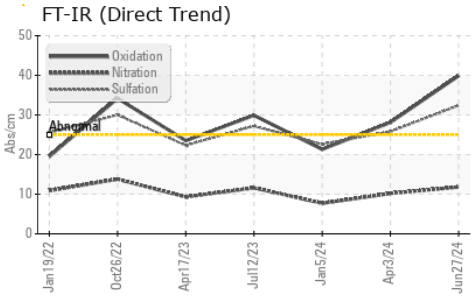
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**39.9**	28.1	21.3
Base Number (BN)	mg KOH/g	ASTM D2896	11.0	▲ **1.7**	▲ 3.7	7.4

OIL ANALYSIS REPORT

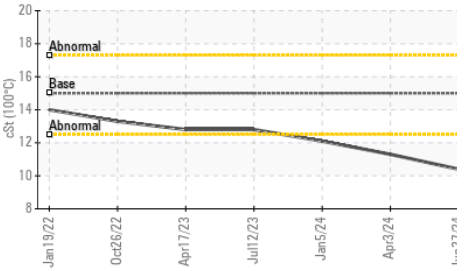
Fuel Dilution



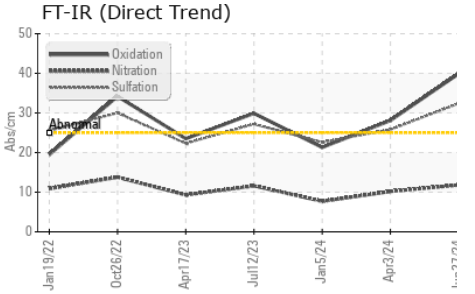
FT-IR (Direct Trend)



Viscosity @ 100°C



FT-IR (Direct Trend)

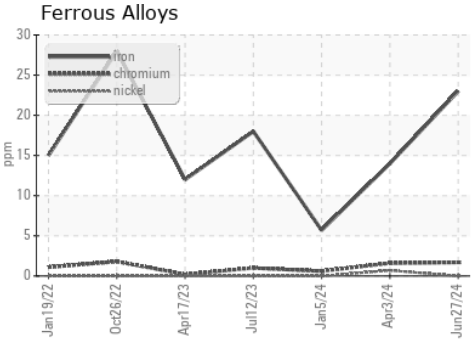


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

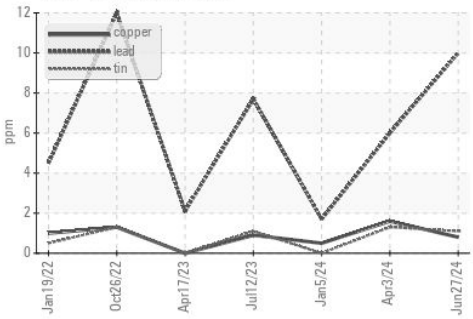
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.0	▲ **10.4**	▲ 11.3	12.1

GRAPHS

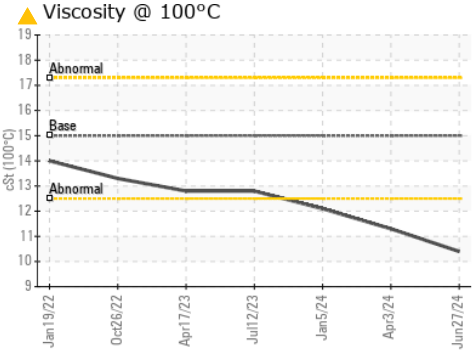
Ferrous Alloys



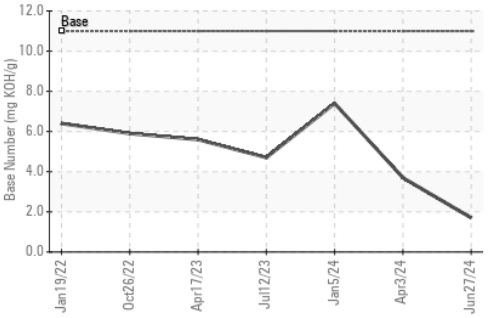
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RPL0021908
Lab Number : 06234470
Unique Number : 11123304
Test Package : FLEET (Additional Tests: PercentFuel)

Received : 12 Jul 2024
Tested : 16 Jul 2024
Diagnosed : 16 Jul 2024 - Sean Felton

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)

RTL PACLEASE - 7006 - Pico Rivera
7837 Telegraph Rd
Pico Rivera, CA
US 90660
Contact: GERARDO CARROLA
carrolag@rushenterprises.com
T:
F:

Report Id: PAC7006 [WUSCAR] 06234470 (Generated: 07/17/2024 23:34:45) Rev: 1

Submitted By: TECHNICIAN ACCOUNT