



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Machine Id
PETERBILT 846-4379

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

WEAR

All component wear rates are normal.

CONTAMINATION

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. Light fuel dilution occurring.

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

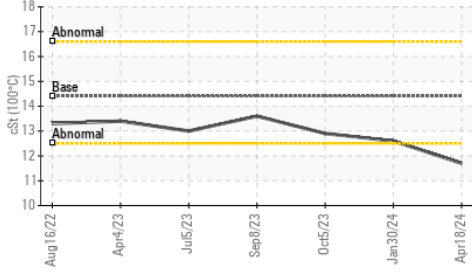
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RPL0019335	RPL0017635	RPL0015502
Sample Date		Client Info		18 Apr 2024	30 Jan 2024	05 Oct 2023
Machine Age	mls	Client Info		172634	165572	153652
Oil Age	mls	Client Info		21628	14566	2656
Filter Age	mls	Client Info		21628	14566	2656
Oil Changed		Client Info		Filtered	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL

Iron	ppm	ASTM D5185m	>110	37	28	9
Chromium	ppm	ASTM D5185m	>4	2	2	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	15	14	2
Lead	ppm	ASTM D5185m	>45	5	3	<1
Copper	ppm	ASTM D5185m	>85	<1	2	1
Tin	ppm	ASTM D5185m	>4	<1	1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

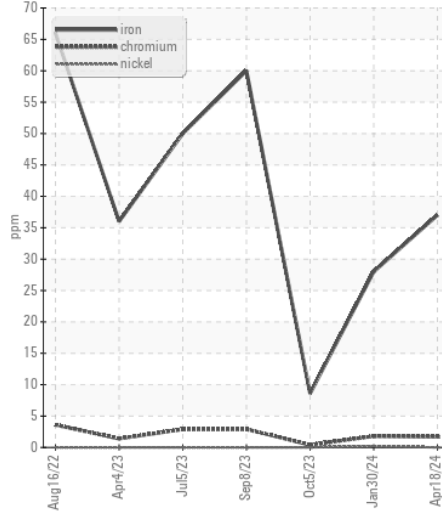
Silicon	ppm	ASTM D5185m	>30	7	7	3
Potassium	ppm	ASTM D5185m	>20	37	34	5
Fuel	%	ASTM D3524	>5	▲ 2.8	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.7	0.5	0.1
Nitration	Abs/cm	*ASTM D7624	>20	10.9	9.5	6.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	23.3	21.2	19.0
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

Sodium	ppm	ASTM D5185m	>158	2	0	1
Boron	ppm	ASTM D5185m	250	2	<1	1
Barium	ppm	ASTM D5185m	10	0	<1	0
Molybdenum	ppm	ASTM D5185m	100	61	84	56
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	931	1337	863
Calcium	ppm	ASTM D5185m	3000	1086	1473	1003
Phosphorus	ppm	ASTM D5185m	1150	1008	1383	906
Zinc	ppm	ASTM D5185m	1350	1221	1709	1102
Sulfur	ppm	ASTM D5185m	4250	3142	4554	2821
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.8	17.2	14.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.0	7.9	9.3
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 11.7	12.6	12.9

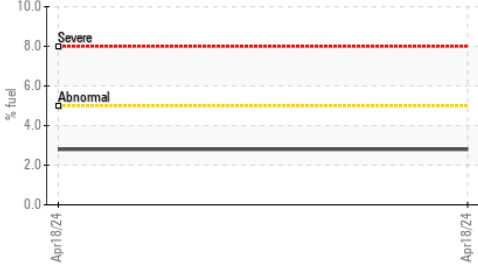
▲ Viscosity @ 100°C



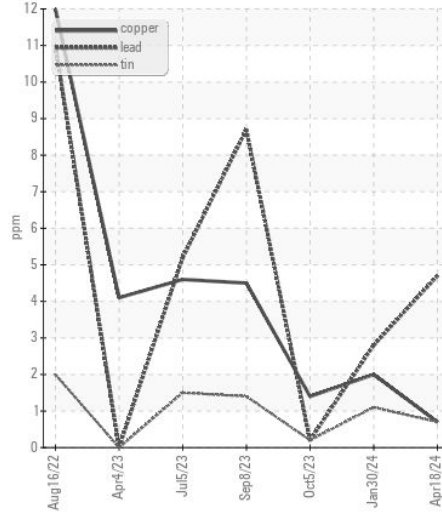
Ferrous Alloys



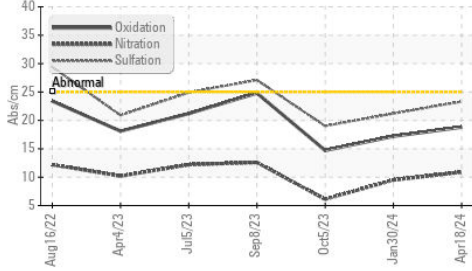
▲ Fuel Dilution



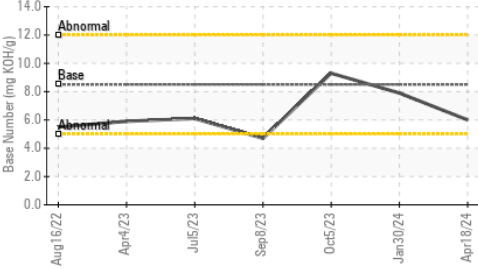
Non-ferrous Metals



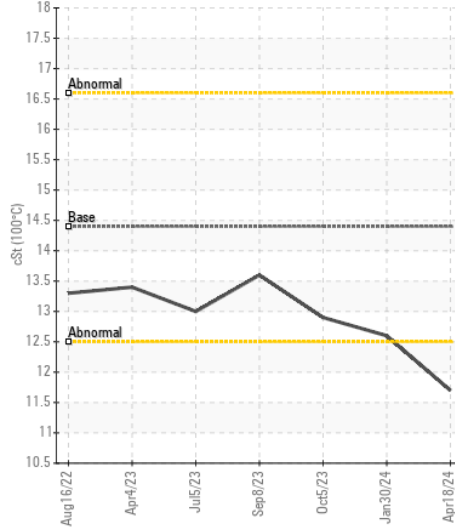
FT-IR (Direct Trend)



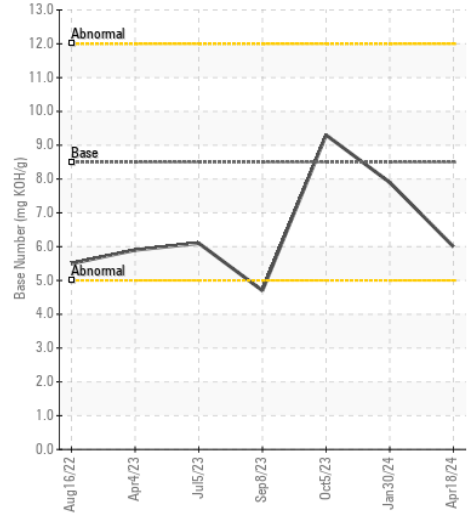
Base Number



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : RPL0019335

Lab Number : 06175318

Unique Number : 11021371

Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 10 May 2024

Tested : 15 May 2024

Diagnosed : 15 May 2024 - Wes Davis

RTL PACLEASE - 7006 - Pico Rivera

7837 Telegraph Rd

Pico Rivera, CA

US 90660

Contact: GERARDO CARROLA

carrolag@rushenterprises.com

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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F: