



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
PETERBILT 21406
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		WC0866879	WC0831987	WC0766622
Sample Date		Client Info		08 Jan 2024	06 Jul 2023	06 Jan 2023
Machine Age	mls	Client Info		192988	183604	174063
Oil Age	mls	Client Info		9384	9641	7972
Filter Age	mls	Client Info		9384	9641	7972
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	28	24	10
Chromium	ppm	ASTM D5185m	>5	2	1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m	>2	0	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	3	0
Lead	ppm	ASTM D5185m	>150	42	44	6
Copper	ppm	ASTM D5185m	>90	3	2	<1
Tin	ppm	ASTM D5185m	>5	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

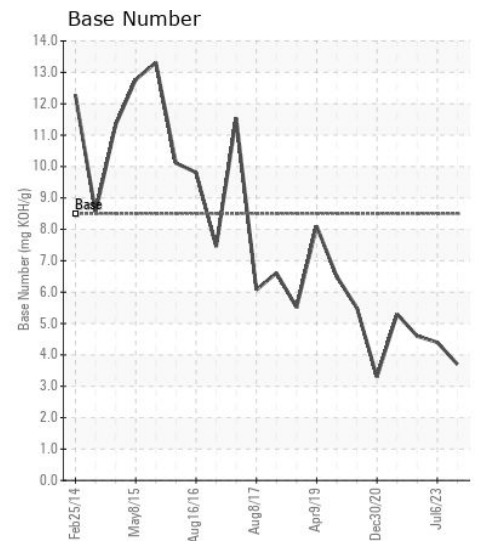
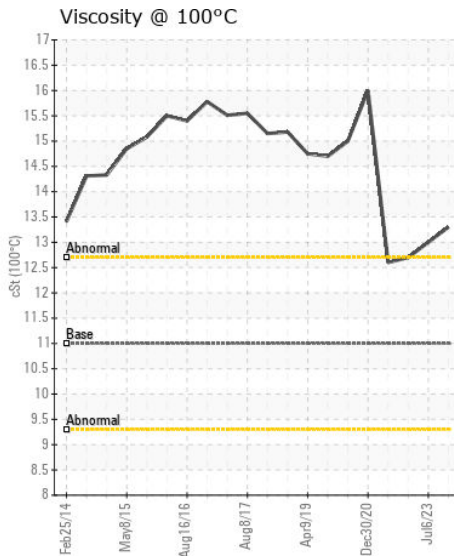
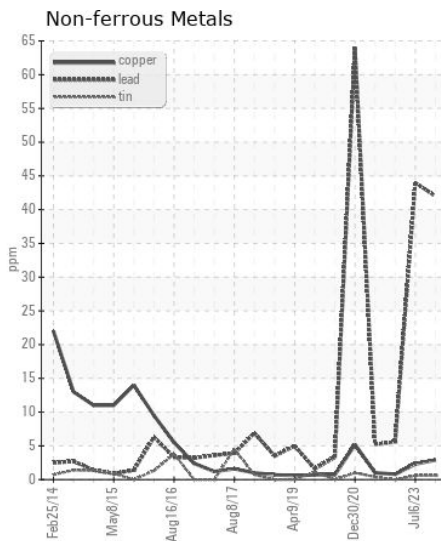
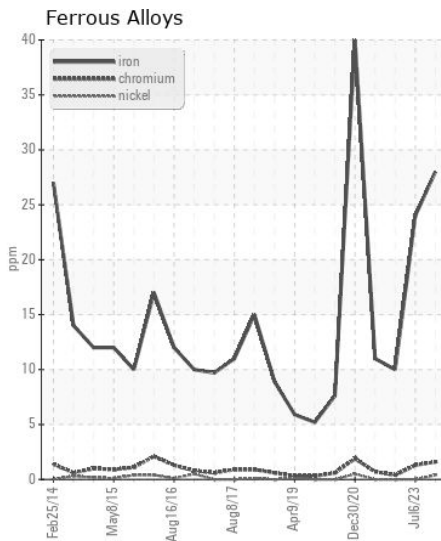
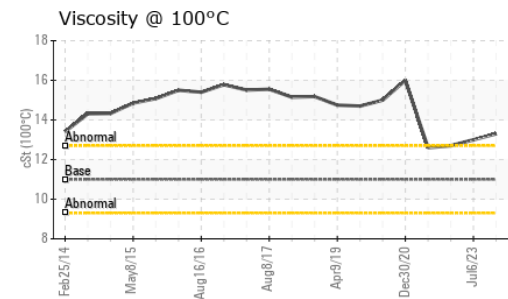
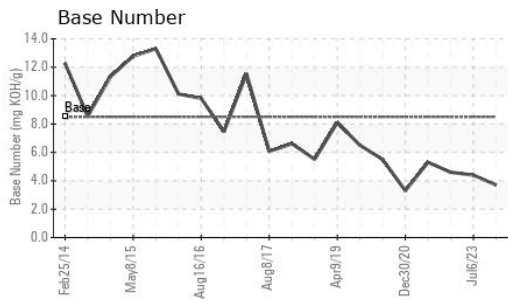
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>35	6	6	2
Potassium	ppm	ASTM D5185m	>20	15	13	11
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>7.5	0.5	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	12.8	13.4	11.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	32.3	33.5	27.7
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

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		5	0	0
Boron	ppm	ASTM D5185m	269	62	75	76
Barium	ppm	ASTM D5185m		0	0	1
Molybdenum	ppm	ASTM D5185m	0	15	7	5
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m	20	86	37	35
Calcium	ppm	ASTM D5185m	1521	2467	2669	2379
Phosphorus	ppm	ASTM D5185m	948	1047	1064	984
Zinc	ppm	ASTM D5185m	893	1364	1289	1199
Sulfur	ppm	ASTM D5185m		3569	3512	3296
Oxidation	Abs/.1mm	*ASTM D7414	>25	29.2	30.7	24.0
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	3.7	4.4	4.6
Visc @ 100°C	cSt	ASTM D445	11.0	13.3	13.0	12.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0866879 **Received** : 17 Jan 2024
Lab Number : 06062425 **Diagnosed** : 18 Jan 2024
Unique Number : 10833807 **Diagnostician** : Sean Felton
Test Package : FLEET

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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)