



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**PETERBILT 344 (S/N 1XPCD40X9ND795750)**  
 Component  
**Diesel Engine**  
 Fluid  
**DIESEL ENGINE OIL SAE 40 (--- GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0893769</b>	WC0867915	WC0804069
Sample Date		Client Info		<b>15 Apr 2024</b>	03 Jan 2024	30 May 2023
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	<b>33</b>	52	34
Chromium	ppm	ASTM D5185m	>4	<b>2</b>	1	1
Nickel	ppm	ASTM D5185m	>2	<b>2</b>	<1	1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>25	<b>5</b>	6	6
Lead	ppm	ASTM D5185m	>45	<b>5</b>	4	4
Copper	ppm	ASTM D5185m	>85	<b>2</b>	1	1
Tin	ppm	ASTM D5185m	>4	<b>2</b>	1	2
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

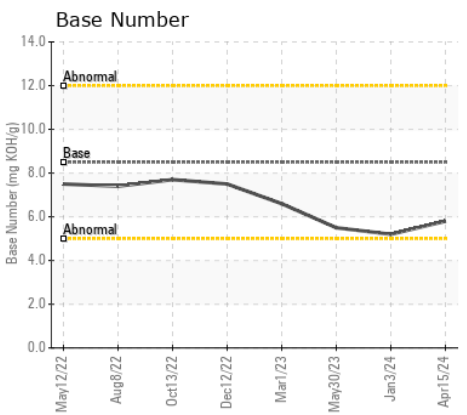
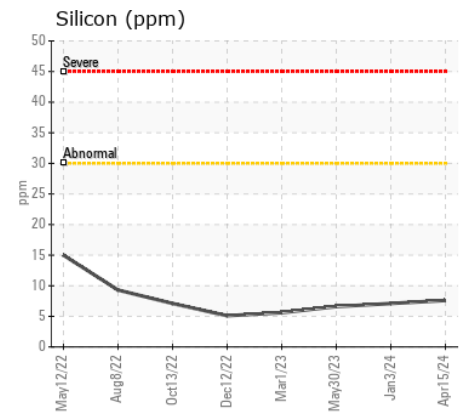
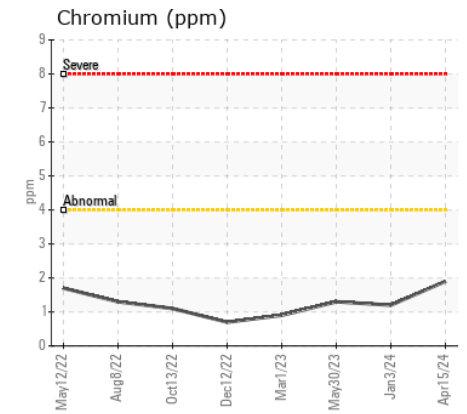
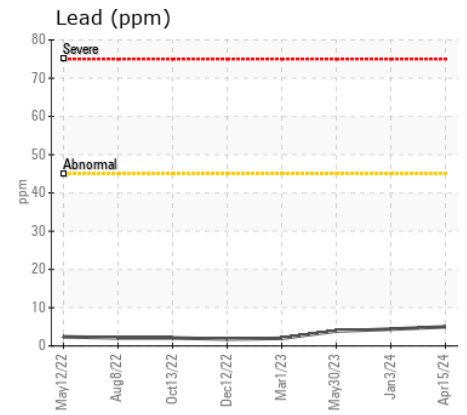
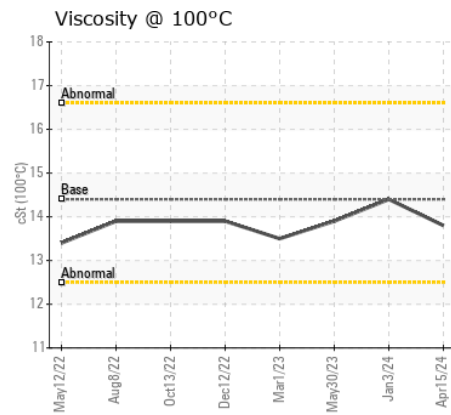
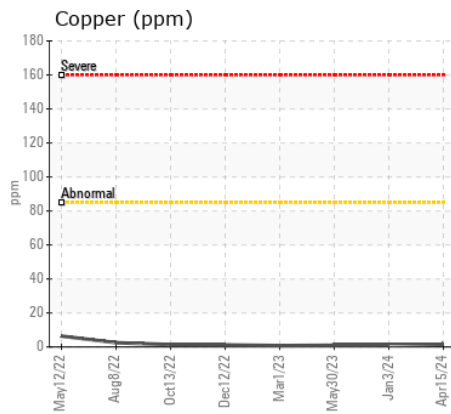
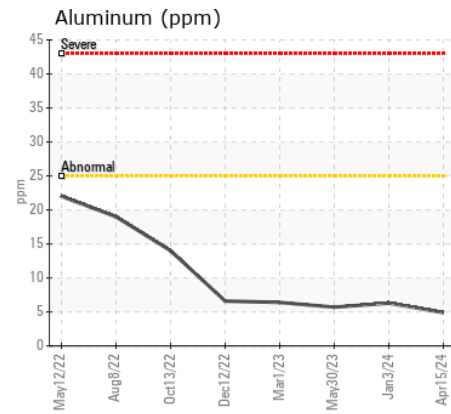
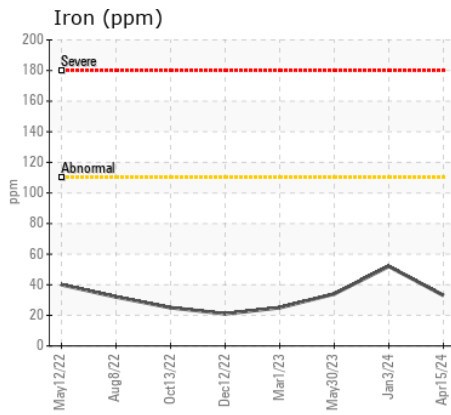
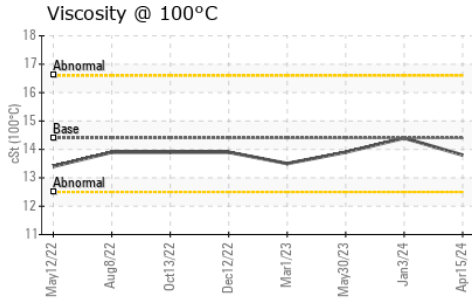
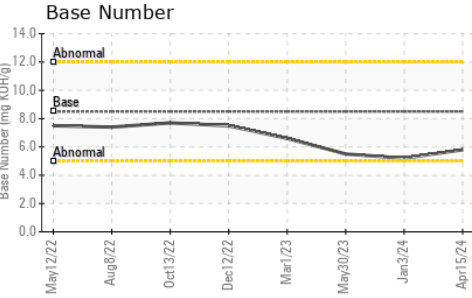
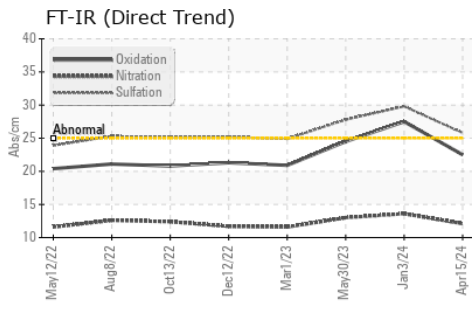
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	<b>8</b>	7	7
Potassium	ppm	ASTM D5185m	>20	<b>6</b>	10	6
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>1.1</b>	1.8	1.8
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.1</b>	13.6	13.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.8</b>	29.8	27.8
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	>216	<b>2</b>	0	2
Boron	ppm	ASTM D5185m	250	<b>10</b>	11	5
Barium	ppm	ASTM D5185m	10	<b>0</b>	10	0
Molybdenum	ppm	ASTM D5185m	100	<b>71</b>	68	64
Manganese	ppm	ASTM D5185m		<b>2</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>915</b>	874	1020
Calcium	ppm	ASTM D5185m	3000	<b>1275</b>	1121	1214
Phosphorus	ppm	ASTM D5185m	1150	<b>1204</b>	1038	1112
Zinc	ppm	ASTM D5185m	1350	<b>1344</b>	1157	1424
Sulfur	ppm	ASTM D5185m	4250	<b>3540</b>	2955	3544
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>22.5</b>	27.5	24.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>5.8</b>	5.2	5.5
Visc @ 100°C	cSt	ASTM D445	14.4	<b>13.8</b>	14.4	13.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0893769  
**Lab Number** : 06152529  
**Unique Number** : 10982607  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**Received** : 17 Apr 2024  
**Tested** : 18 Apr 2024  
**Diagnosed** : 18 Apr 2024 - Wes Davis

**MANGUMS INC**  
 P.O. BOX 7177  
 WILSON, NC  
 US 27895  
 Contact: ALAN BAGLEY  
 alanb@mangumsinc.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)