WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL NORMAL

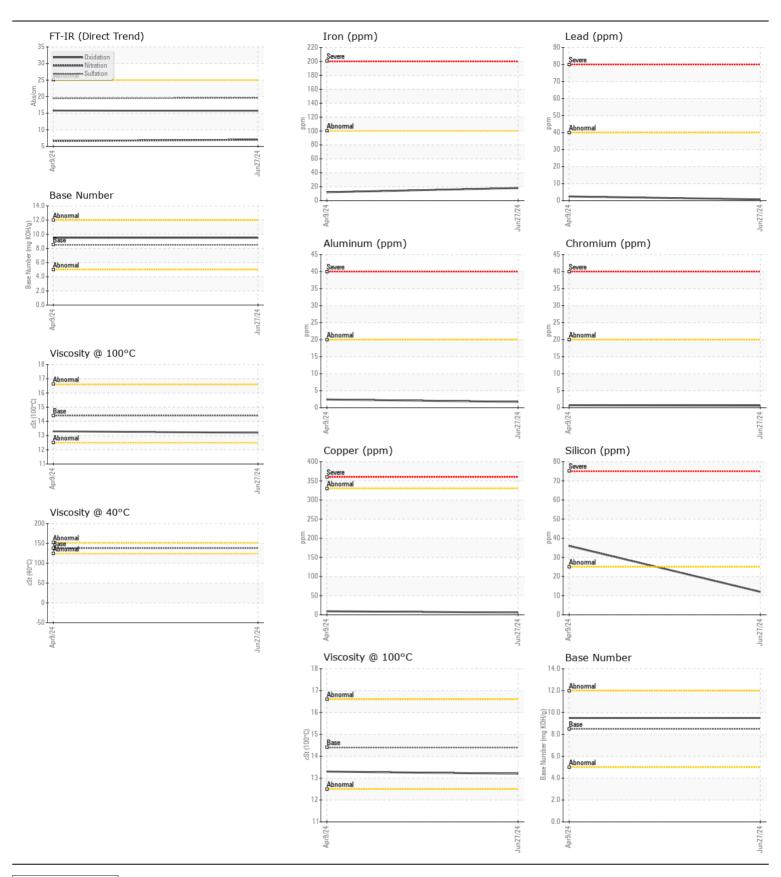
Machine Id

## **KENWORTH 04 KENWORTH**

**Diesel Engine** 

DIESEL ENGINE OIL SAE 40 (--- QTS)

DIESEL ENGINE OIL SAE 40 ( Q13)							
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		LF0001837	LF0001820	
	Sample Date		Client Info		27 Jun 2024	09 Apr 2024	
	Machine Age	mls	Client Info		0	0	
	Oil Age	mls	Client Info		0	0	
	Filter Age	mls	Client Info		0	0	
	Oil Changed		Client Info		N/A	N/A	
	Filter Changed		Client Info		N/A	N/A	
	Sample Status				NORMAL	ABNORMAL	
WEAR	Iron	ppm	ASTM D5185m	>100	18	12	
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>20	<1	<1	
	Nickel	ppm	ASTM D5185m		<1	<1	
	Titanium	ppm	ASTM D5185m		<1	<1	
	Silver	ppm	ASTM D5185m	>3	<1	0	
	Aluminum	ppm	ASTM D5185m		2	2	
	Lead	ppm	ASTM D5185m		- <1	2	
	Copper	ppm	ASTM D5185m		6	9	
	Tin	ppm	ASTM D5185m		<1	2	
	Vanadium	ppm	ASTM D5185m		<1	<1	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
ONTAMINATION	Silicon	ppm	ASTM D5185m	>25	12	<b>△</b> 36	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	2	3	
	Fuel		WC Method	>5	<1.0	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844	>3	0.2	0.1	
	Nitration	Abs/cm	*ASTM D7624	>20	7.0	6.6	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.6	19.5	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG	NEG	
LUID CONDITION	Sodium	ppm	ASTM D5185m	<b>&gt;216</b>	3	5	
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.	Boron	ppm	ASTM D5185m		31	58	
	Barium	ppm	ASTM D5185m		0	0	
	Molybdenum	ppm	ASTM D5185m	-	51	50	
	Manganese	ppm	ASTM D5185m	.00	<1	1	
	Magnesium	ppm	ASTM D5185m	450	560	518	
	Calcium	ppm	ASTM D5185m		1549	1606	
	Phosphorus	ppm	ASTM D5185m		1103	1023	
	Zinc	ppm	ASTM D5185m		1256	1202	
	Sulfur	ppm	ASTM D5185m		2992	3318	
	Oxidation	Abs/.1mm	*ASTM D7414		15.7	15.8	
					9.5		
	Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.5	9.5	





Certificate L2367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : LF0001837 Lab Number : 06224234 Unique Number : 11102431

Received **Tested** 

Diagnosed Test Package : MOB 1 ( Additional Tests: KV40, TBN )

: 01 Jul 2024 : 01 Jul 2024 - Angela Borella

: 28 Jun 2024

Contact: CHRIS DOWNEY palmernsons@verizon.net T: (570)253-1618

**D PALMER & SONS** 

HONESDALE, PA

US 18431

139 BEACH LAKE HWY

F: (570)253-9147

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)