WEAR CONTAMINATION FLUID CONDITION

NORMAL

ABNORMAL

NORMAL

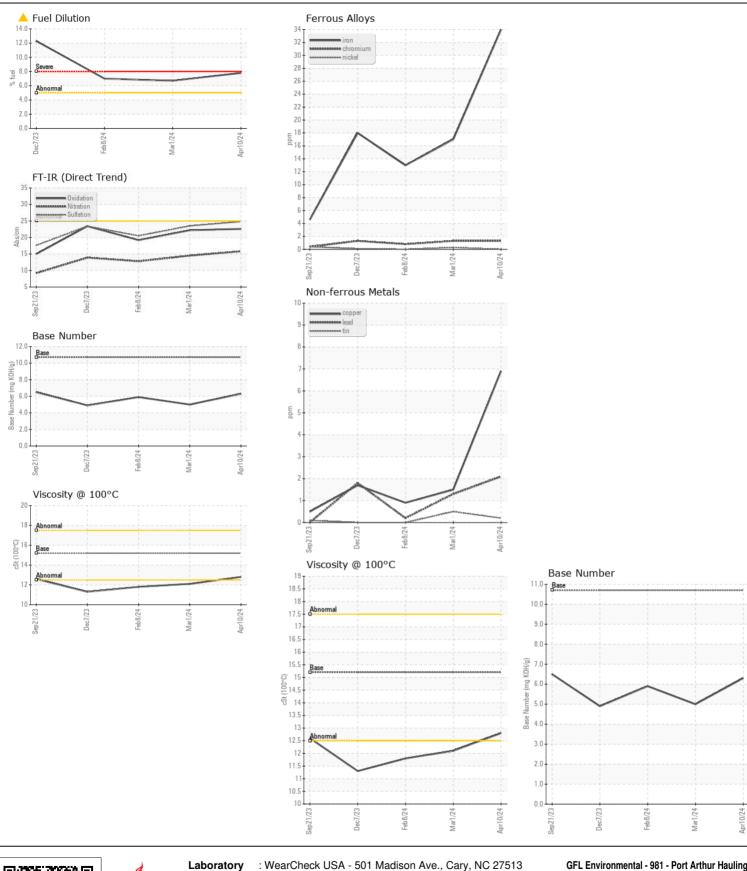
Machine Id

KENWORTH 426142-SW4619

Component

Diesel Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		GFL0111296	GFL0095463	,
The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.	Sample Date		Client Info		10 Apr 2024	01 Mar 2024	08 Feb 2024
	Machine Age	hrs	Client Info		16375	16064	16375
	Oil Age	hrs	Client Info		16375	0	0
	Filter Age	hrs	Client Info		0	0	0
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				ABNORMAL	ABNORMAL	ABNORMA
WEAR	Iron	nnm	ASTM D5185m	>100	34	17	13
WLAN	Chromium	ppm	ASTM D5185m		1	1	<1
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		0	<1	0
	Titanium	ppm	ASTM D5185m	24	0	<1	0
	Silver	ppm	ASTM D5185m	~3	0	0	0
	Aluminum	ppm	ASTM D5185m		7	7	4
	Lead	ppm	ASTM D5185m		2	1	<1
	Copper	ppm	ASTM D5185m		7	2	<1
	Tin	ppm	ASTM D5185m		<1	<1	0
	Vanadium	ppm	ASTM D5185m	7.0	0	<1	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	0						
CONTAMINATION	Silicon	ppm	ASTM D5185m		7	8	6
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.	Potassium	ppm	ASTM D5185m		4	8	2
	Fuel	%	ASTM D3524 WC Method	>5	▲ 7.8	▲ 6.7	▲ 7.0
	Water Glycol		WC Method	>0.2	NEG NEG	NEG NEG	NEG NEG
	Soot %	%	*ASTM D7844	~3	1.5	0.9	0.6
	Nitration	Abs/cm	*ASTM D7624	>20	15.8	14.5	12.8
	Sulfation	Abs/.1mm	*ASTM D7415		24.8	23.5	20.5
	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	NORM
	Odor	scalar	*Visual	NORML	NORML	NORML	NORM
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
THUR CONDITION	0		AOTA DE40E				
FLUID CONDITION	Sodium	ppm	ASTM D5185m		9	1	6
The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.	Boron Barium	ppm	ASTM D5185m ASTM D5185m		43 0	48	57
	Molybdenum	ppm	ASTM D5185m		122	1 131	1 113
	Manganese	ppm	ASTM D5185m		<1	<1	0
	Magnesium	ppm	ASTM D5185m		645	646	630
	Calcium	ppm	ASTM D5185m		1203	1243	1218
	Phosphorus	ppm	ASTM D5185m		736	712	698
	Zinc	ppm	ASTM D5185m		809	831	790
	Sulfur	ppm	ASTM D5185m		3475	3202	3013
	Oxidation	Abs/.1mm	*ASTM D7414	>25	22.6	22.2	19.2
					6.3	5.0	5.9
	Base Number (BN)	IIIQ NUT/U	49 I IVI D2090	10.7	0.3	0.0	0.0







Certificate L2367

Laboratory Sample No. Unique Number : 11114704

: GFL0111296 Lab Number : 06231211

Received **Tested** Diagnosed Test Package: FLEET (Additional Tests: PercentFuel)

: 09 Jul 2024

: 11 Jul 2024 : 11 Jul 2024 - Wes Davis

GFL Environmental - 981 - Port Arthur Hauling 1000 S Business Park Dr

Port Arthur, TX US 77640 Contact: MICHAEL KAY

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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)