WEAR CONTAMINATION **FLUID CONDITION**

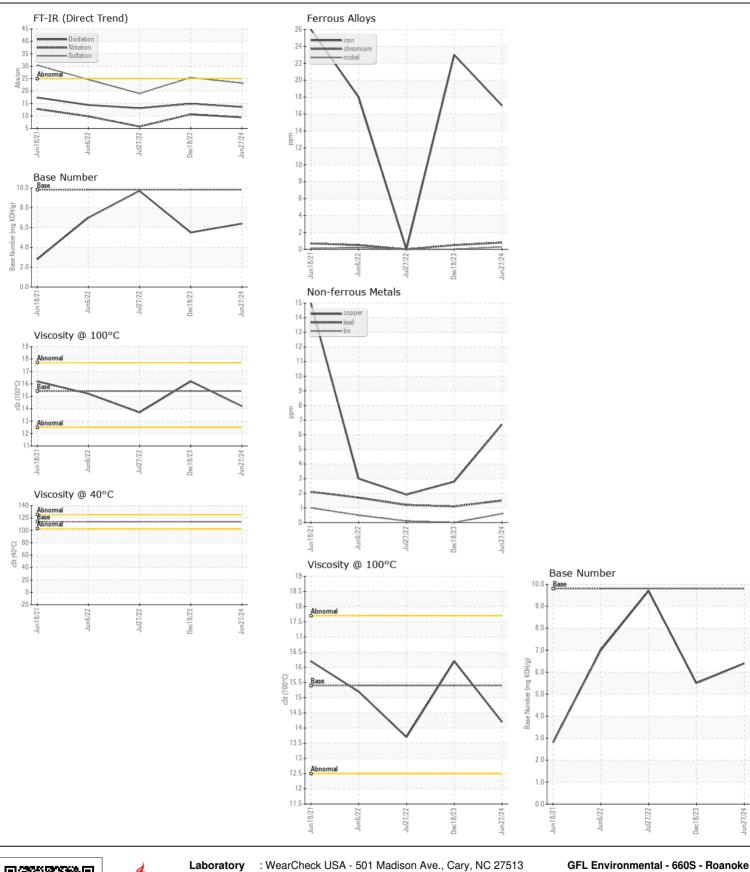
NORMAL NORMAL NORMAL



Machine Id 427026-4039

Component
Diesel Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		GFL0122684	GFL0085533	GFL0053262
	Sample Date		Client Info		27 Jun 2024	18 Dec 2023	27 Jul 2022
	Machine Age	hrs	Client Info		29115	28588	27415
	Oil Age	hrs	Client Info		600	0	600
	Filter Age	hrs	Client Info		600	0	600
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	ABNORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>120	17	23	0
WEAT	Chromium	ppm	ASTM D5185m		<1	<1	0
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		<1	0	0
	Titanium	ppm	ASTM D5185m		6	0	<1
	Silver	ppm	ASTM D5185m		<1	0	2
	Aluminum	ppm	ASTM D5185m		3	2	<1
	Lead	ppm	ASTM D5185m	>40	2	1	1
	Copper	ppm	ASTM D5185m		7	3	2
	Tin	ppm	ASTM D5185m		, <1	0	<1
	Vanadium	ppm	ASTM D5185m	710	<1	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTABBINATION							
CONTAMINATION	Silicon	ppm	ASTM D5185m		4 3	3	2 <1
There is no indication of any contamination in the oil.	Potassium Fuel	ppm	ASTM D5185m			2	
			WC Method		<1.0	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol	0/	WC Method	4	NEG	NEG 4.1	NEG
	Soot %	%	*ASTM D7844 *ASTM D7624		3.2		0.6 5.7
	Nitration Sulfation	Abs/cm Abs/.1mm	*ASTM D7624	>20	9.4 23.2	10.6 25.4	19.0
	Silt		*Visual	NONE	NONE	NONE	NONE
	Debris	scalar scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt		*Visual	NONE	NONE	NONE	NONE
		scalar	*Visual	NORML	NORML	NORML	NORM
	Appearance Odor	scalar scalar	*Visual	NORML	NORML	NORML	NORM
	Emulsified Water		*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m	0	1	0	<1
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Boron	ppm	ASTM D5185m		7	2	6
	Barium	ppm	ASTM D5185m		<1	0	0
	Molybdenum	ppm	ASTM D5185m		51	50	56
	Manganese	ppm	ASTM D5185m		<1	0	0
	Magnesium	ppm	ASTM D5185m		778	842	861
	Calcium	ppm	ASTM D5185m		1062	997	1092
	Phosphorus Zinc	ppm	ASTM D5185m		880	902	998
		ppm	ASTM D5185m		1104	1086	1206
		10 10 100	ACTM DE10E	2000			
	Sulfur	ppm Abs/1mm	ASTM D5185m		2543	2920	3282
		Abs/.1mm	*ASTM D7414	>25	2543 13.6 6.4	2920 14.9 5.5	3282 13.1 9.7







Laboratory

Sample No. Lab Number : 06225663

: GFL0122684

Unique Number : 11103860

Received : 01 Jul 2024 **Tested** Diagnosed

: 03 Jul 2024 : 03 Jul 2024 - Don Baldridge

2045 LEE HWY Cloverdale, VA US 24077 Contact: DELBERT BEASLEY

Test Package : FLEET (Additional Tests: KV40) Certificate L2367 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)

T:

F: