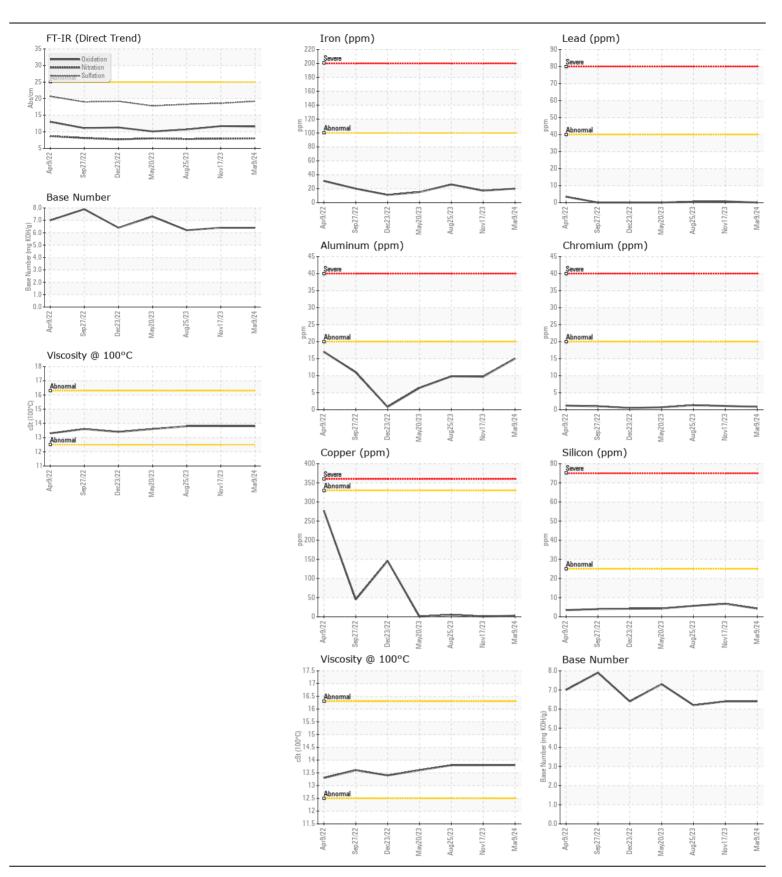
WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL

Machine Id

F-48
Component
Diesel Engine

RECOMMENDATION Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		DC0030813	DC0030734	DC0022576
	Sample Date		Client Info		09 Mar 2024	17 Nov 2023	25 Aug 2023
	Machine Age	hrs	Client Info		6666	6012	5436
	Oil Age	hrs	Client Info		654	576	682
	Filter Age	hrs	Client Info		654	576	682
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>100	20	17	26
All component week rates are newed	Chromium	ppm	ASTM D5185m	>20	<1	1	1
All component wear rates are normal.	Nickel	ppm	ASTM D5185m	>4	0	<1	<1
	Titanium	ppm	ASTM D5185m		0	<1	<1
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m	>20	15	10	10
	Lead	ppm	ASTM D5185m	>40	0	<1	<1
	Copper	ppm	ASTM D5185m	>330	3	1	5
	Tin	ppm	ASTM D5185m	>15	0	<1	<1
	Vanadium	ppm	ASTM D5185m		0	<1	<1
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	4	7	6
	Potassium	ppm	ASTM D5185m		2	3	4
There is no indication of any contamination in the oil.	Fuel	1-1-	WC Method		<1.0	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.4	0.3	0.3
	Nitration	Abs/cm	*ASTM D7624	>20	8.0	7.9	7.8
	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	18.6	18.3
	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	NORMI
	Odor	scalar	*Visual	NORML	NORML	NORML	NORMI
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		1	<1	2
	Boron	ppm	ASTM D5185m		15	30	<1
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	0	11
	Molybdenum	ppm	ASTM D5185m		10	15	3
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m		94	96	47
	Calcium	ppm	ASTM D5185m		2284	2236	2254
	Phosphorus	ppm	ASTM D5185m		916	923	903
	Zinc	ppm	ASTM D5185m		1084	1039	1103
	Sulfur	ppm	ASTM D5185m		4170	3712	3714
	Oxidation	Abs/.1mm	*ASTM D7414	>25	11.6	11.7	10.7
	Base Number (BN)				6.4	6.4	6.2
	Visc @ 100°C	cSt	ASTM D445		13.8	13.8	13.8







Certificate L2367

Laboratory Sample No.

: DC0030813 Lab Number : 06146461

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

Tested Unique Number: 10976539 Diagnosed Test Package : MOB 1 (Additional Tests: TBN)

Received : 11 Apr 2024 : 12 Apr 2024

: 12 Apr 2024 - Wes Davis

THOMAS BENNETT & HUNTER INC 70 JOHN ST WESTMINSTER, MD US 21157

> Contact: JOE STEPHAN jstephan@tbhconcrete.com T: (410)848-9030

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)

F: (410)848-9032