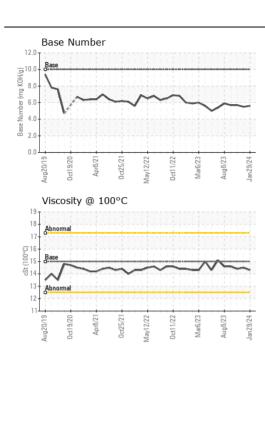
WEAR CONTAMINATION **FLUID CONDITION** **NORMAL NORMAL NORMAL**

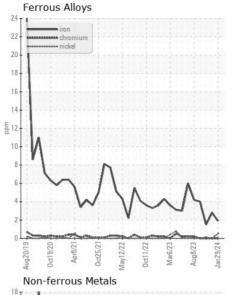
Machine Id

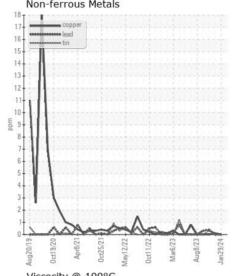
016-0114

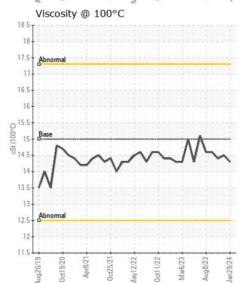
Component Diesel Engine

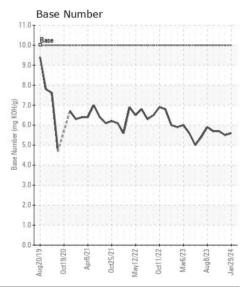
RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		WC0868351	WC0868383	WC075061
Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Date		Client Info		29 Jan 2024	16 Nov 2023	17 Oct 202
	Machine Age	hrs	Client Info		12272	11981	11721
	Oil Age	hrs	Client Info		0	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				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>100	2	3	2
	Chromium	ppm	ASTM D5185m	>20	0	0	0
All component wear rates are normal.	Nickel	ppm	ASTM D5185m	>4	<1	0	<1
	Titanium	ppm	ASTM D5185m		0	0	0
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m	>20	4	2	3
	Lead	ppm	ASTM D5185m	>40	0	0	<1
	Copper	ppm	ASTM D5185m	>330	0	<1	0
	Tin	ppm	ASTM D5185m	>15	0	0	<1
	Vanadium	ppm	ASTM D5185m		<1	<1	<1
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	3	3	3
	Potassium	ppm	ASTM D5185m	>20	<1	0	<1
There is no indication of any contamination in the oil.	Fuel		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	0.1	0.1	0.1
	Nitration	Abs/cm	*ASTM D7624	>20	9.9	9.1	9.0
	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0	18.5	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	NORM
	Odor	scalar	*Visual	NORML	NORML	NORML	NORM
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		2	2	1
	Boron	ppm	ASTM D5185m		65	63	57
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	0
	Molybdenum	ppm	ASTM D5185m	50	75	74	70
	Manganese	ppm	ASTM D5185m		0	0	<1
	Magnesium	ppm	ASTM D5185m	1000	18	18	32
	Calcium	ppm	ASTM D5185m	1400	2202	2102	2142
	Phosphorus	ppm	ASTM D5185m	985	1103	994	1051
	Zinc	ppm	ASTM D5185m	1060	1334	1281	1268
	Sulfur	ppm	ASTM D5185m	4000	5339	4687	4972
	Oxidation	Abs/.1mm	*ASTM D7414	>25	16.0	15.6	15.0
	Base Number (BN)	mg KOH/g	ASTM D2896	10	5.6	5.5	5.7
	Visc @ 100°C	cSt	ASTM D445	15	14.3	14.5	14.4













Certificate L2367

Laboratory Sample No.

Lab Number : 06088054 Unique Number : 10875499

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : WC0868351

Received **Tested**

Diagnosed Test Package : CONST (Additional Tests: TBN)

: 13 Feb 2024 : 14 Feb 2024

: 14 Feb 2024 - Wes Davis

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)

SHIMMICK CONSTRUCTION

5535 TRAILHEAD DRIVE CHATTANOOGA, TN

US 37415 Contact: DANIEL LISELLA

daniel.lisella@shimmick.com

T:

F: Contact/Location: DANIEL LISELLA - AECCHATN