WEAR CONTAMINATION **FLUID CONDITION**

NORMAL NORMAL NORMAL

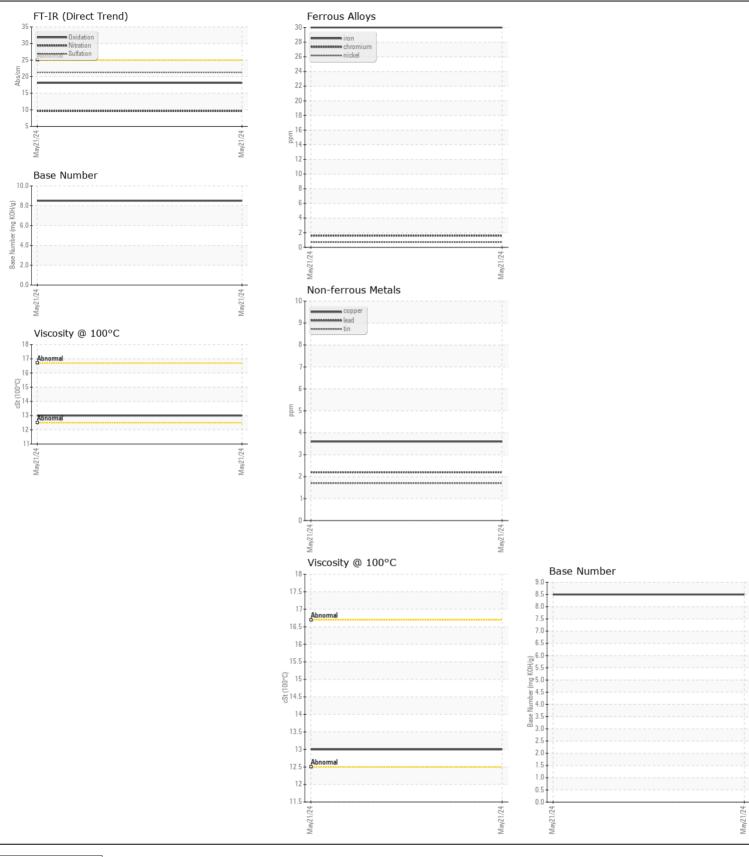
Machine Id

MANVEL E-121

Component

Diesel Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.	Sample Number	J J	Client Info		WC0941940		
	Sample Date		Client Info		21 May 2024		
	Machine Age	mls	Client Info		0		
	Oil Age	mls	Client Info		0		
	Filter Age	mls	Client Info		0		
	Oil Changed		Client Info		N/A		
	Filter Changed		Client Info		N/A		
	Sample Status				NORMAL		
VEAR	Iron	ppm	ASTM D5185m	>100	30		
	Chromium	ppm	ASTM D5185m		2		
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		<1		
	Titanium	ppm	ASTM D5185m		2		
	Silver	ppm	ASTM D5185m	>3	1		
	Aluminum	ppm	ASTM D5185m		9		
	Lead	ppm	ASTM D5185m		2		
	Copper	ppm	ASTM D5185m	>330	4		
	Tin	ppm	ASTM D5185m		2		
	Vanadium	ppm	ASTM D5185m		<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	10		
	Potassium	ppm	ASTM D5185m		18		
There is no indication of any contamination in the oil.	Fuel	le le	WC Method	>5	<1.0		
	Water		WC Method		NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844	>3	0.5		
	Nitration	Abs/cm	*ASTM D7624	>20	9.6		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	21.3		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
	Appearance	scalar	*Visual	NORML	NORML		
	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
LUID CONDITION	Sodium	ppm	ASTM D5185m		5		
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		48		
	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m		62		
	Manganese	ppm	ASTM D5185m		2		
	Magnesium	ppm	ASTM D5185m		745		
	Calcium	ppm	ASTM D5185m		1275		
	Phosphorus	ppm	ASTM D5185m		779		
	Zinc	ppm	ASTM D5185m		901		
	Sulfur	ppm	ASTM D5185m		2683		
	Oxidation	Abs/.1mm	*ASTM D7414	>25	18.1		
	Base Number (BN)	mg KOH/g	ASTM D2896		8.5		
	Visc @ 100°C	cSt	ASTM D445		13.0		







Certificate L2367

Laboratory Sample No.

Lab Number : 06187334 Unique Number : 11044086

: WC0941940

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

Received **Tested** Diagnosed Test Package : CONST (Additional Tests: TBN)

: 22 May 2024 : 23 May 2024

: 23 May 2024 - Wes Davis

SIDDONS-MARTIN EMERGENCY GROUP 4401 REX RD

FRIENDSWOOD, TX US 77546

Contact: DD LOUHY DDLOUHY@SIDDONS-MARTIN.COM

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: