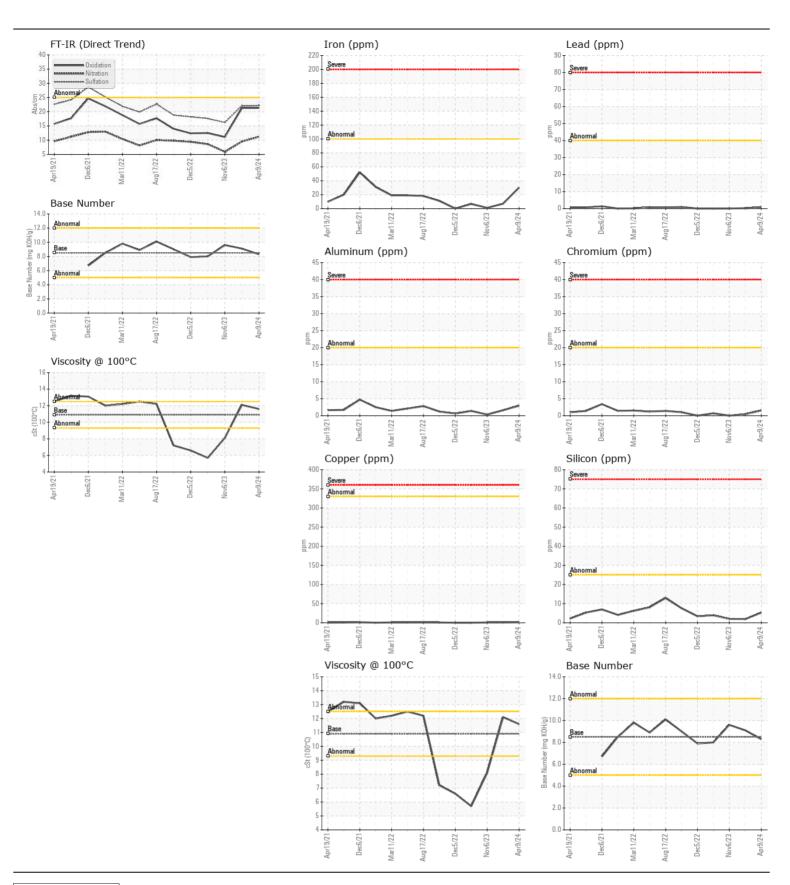
WEAR CONTAMINATION **FLUID CONDITION**

NORMAL NORMAL NORMAL

Machine Id

CCC 291
Component
Diesel Engine
Fluid
Fluid
Diesel Engine

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		LW0009004	LW0008629	LW000784
Resample at the next service interval to monitor.	Sample Date		Client Info		09 Apr 2024	27 Jan 2024	06 Nov 202
	Machine Age	mls	Client Info		0	0	0
	Oil Age	mls	Client Info		0	0	0
	Filter Age	mls	Client Info		0	0	0
	Oil Changed		Client Info		N/A	N/A	N/A
	Filter Changed		Client Info		N/A	N/A	N/A
	Sample Status				NORMAL	ABNORMAL	SEVERE
VEAR	Iron	ppm	ASTM D5185m	>100	30	7	1
	Chromium	ppm	ASTM D5185m	>20	2	<1	0
All component wear rates are normal.	Nickel	ppm	ASTM D5185m	>4	<1	0	0
	Titanium	ppm	ASTM D5185m		<1	<1	0
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m	>20	3	2	<1
	Lead	ppm	ASTM D5185m	>40	<1	<1	0
	Copper	ppm	ASTM D5185m	>330	2	1	<1
	Tin	ppm	ASTM D5185m	>15	<1	0	0
	Vanadium	ppm	ASTM D5185m		0	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NON
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NON
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	5	2	2
	Potassium	ppm	ASTM D5185m	>20	2	2	0
There is no indication of any contamination in the oil.	Fuel		WC Method	>5	<1.0	4 .7	▲ 25.7
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.5	0.3	0.3
	Nitration	Abs/cm	*ASTM D7624	>20	11.2	9.5	5.9
	Sulfation	Abs/.1mm	*ASTM D7415	>30	22.2	22.1	16.2
	Silt	scalar	*Visual	NONE	NONE	NONE	NON
	Debris	scalar	*Visual	NONE	NONE	NONE	NON
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NON
	Appearance	scalar	*Visual	NORML	NORML	NORML	NORM
	Odor	scalar	*Visual	NORML	NORML	NORML	NORN
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
LUID CONDITION	Sodium	ppm	ASTM D5185m	>75	0	0	<1
The DN secretaries also the table as is excitable all a Baltimore while a line	Boron	ppm	ASTM D5185m	250	2	6	2
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	10	0	<1	0
	Molybdenum	ppm	ASTM D5185m	100	63	54	44
	Manganese	ppm	ASTM D5185m		<1	0	0
	Magnesium	ppm	ASTM D5185m	450	957	814	760
	Calcium	ppm	ASTM D5185m	3000	1094	▲ 896	▲ 807
	Phosphorus	ppm	ASTM D5185m	1150	1090	922	794
	Zinc	ppm	ASTM D5185m	1350	1227	1082	993
	Sulfur	ppm	ASTM D5185m	4250	3197	3554	2434
	Oxidation	Abs/.1mm	*ASTM D7414	>25	21.3	21.3	11.1
	Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.3	9.1	9.6
	Visc @ 100°C	cSt	ASTM D445	10.9	11.6	12.1	▲ 8.1





Certificate L2367

Laboratory Sample No.

: LW0009004 Lab Number : 06148427

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Unique Number: 10978505

Received **Tested** Diagnosed Test Package : MOB 1 (Additional Tests: TBN)

: 15 Apr 2024 : 16 Apr 2024

: 16 Apr 2024 - Wes Davis

LRS - NILES 33541 REUM RD NILES, MI US 49120 Contact: JOHN HUGHES

To discuss this sample report, contact Customer Service at 1-800-237-1369.

johnh@michianarecyclinganddisposal.com T: (269)684-0900 X:124

* - 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)