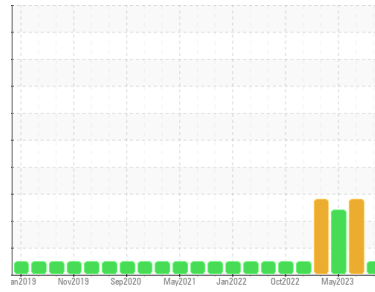




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
MANITOWOC MLC 300 015-0067
 Component
Diesel Engine
 Fluid
SCHAEFFER SUPREME 7000 (9 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: Hours: 8379)

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			WC0904106	WC0698014	WC0815147
Sample Date	Client Info			19 Apr 2024	26 May 2023	05 May 2023
Machine Age	hrs	Client Info		8379	7944	7883
Oil Age	hrs	Client Info		7944	0	42
Oil Changed	Client Info			Not Chngd	Changed	Not Chngd
Sample Status				NORMAL	SEVERE	SEVERE

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method	>0.2		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	4	<1	<1
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	1
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	3	2	0
Lead	ppm	ASTM D5185m	>40	0	0	1
Copper	ppm	ASTM D5185m	>330	2	0	0
Tin	ppm	ASTM D5185m	>15	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		66	77	78
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m	50	78	56	57
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	1000	32	17	18
Calcium	ppm	ASTM D5185m	1400	2320	1811	1880
Phosphorus	ppm	ASTM D5185m	985	1039	857	916
Zinc	ppm	ASTM D5185m	1060	1259	1031	1105
Sulfur	ppm	ASTM D5185m	4000	5468	5067	5371

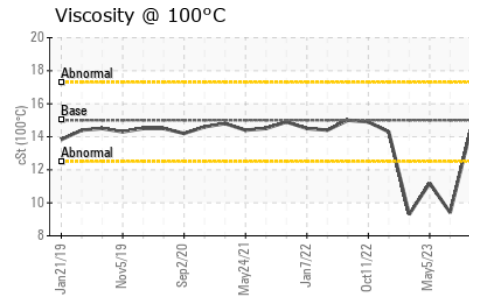
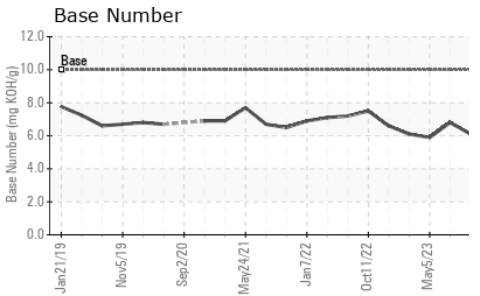
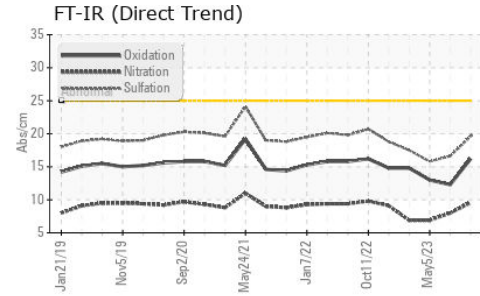
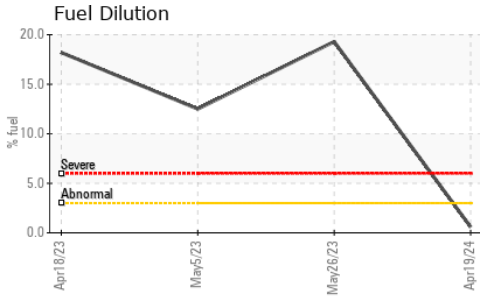
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	3	5	5
Sodium	ppm	ASTM D5185m		<1	<1	<1
Potassium	ppm	ASTM D5185m	>20	0	<1	2
Fuel	%	ASTM D3524	>3.0	0.6	▲ 19.3	▲ 12.5

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>6	0.1	0.1	0
Nitration	Abs/cm	*ASTM D7624	>20	9.6	8.0	6.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.6	16.6	15.8

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.2	12.3	13.0
Base Number (BN)	mg KOH/g	ASTM D2896	10	6.1	6.8	5.9



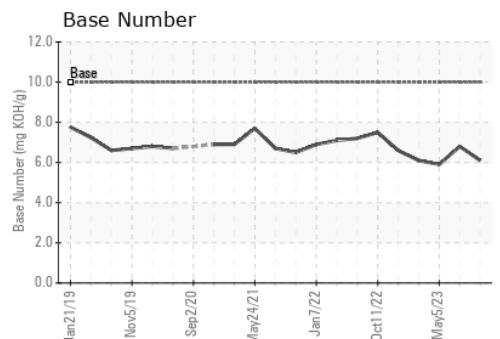
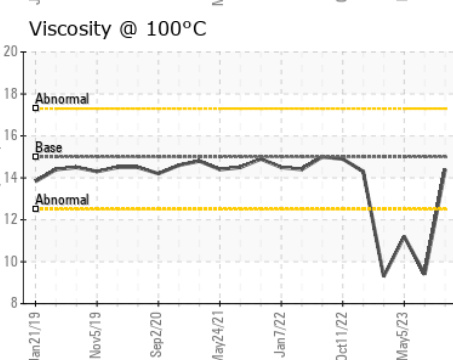
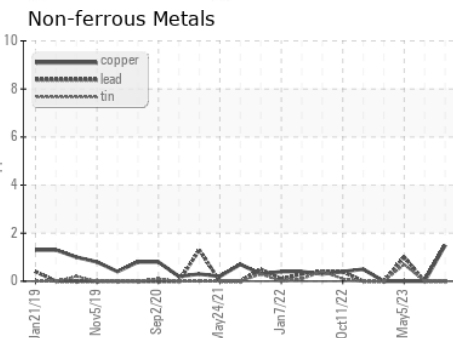
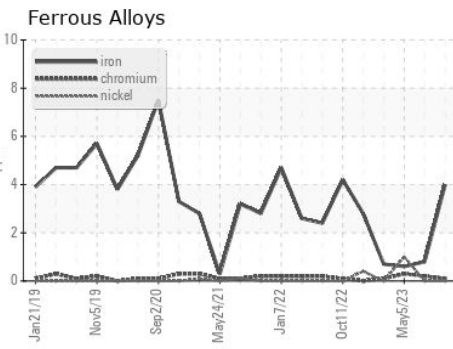
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445 15	14.4	▲ 9.4	▲ 11.2

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0904106 **Received** : 24 Apr 2024
Lab Number : 06158869 **Tested** : 25 Apr 2024
Unique Number : 10994292 **Diagnosed** : 26 Apr 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: PercentFuel, TBN)

SHIMMICK CONSTRUCTION
 5535 TRAILHEAD DRIVE
 CHATTANOOGA, TN
 US 37415
 Contact: DANIEL LISELLA
 daniel.lisella@shimmick.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)

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F: