

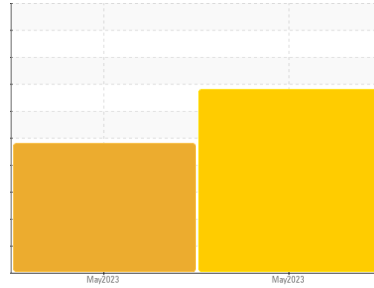
PROBLEM SUMMARY

Sample Rating Trend

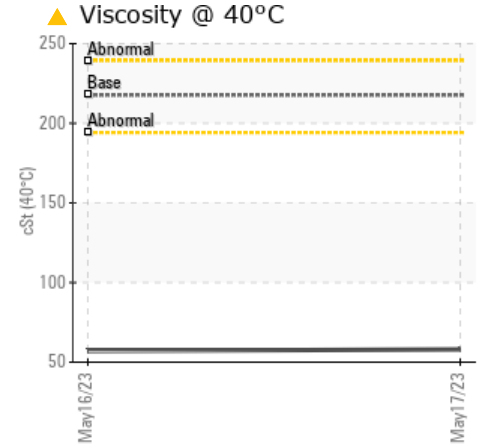
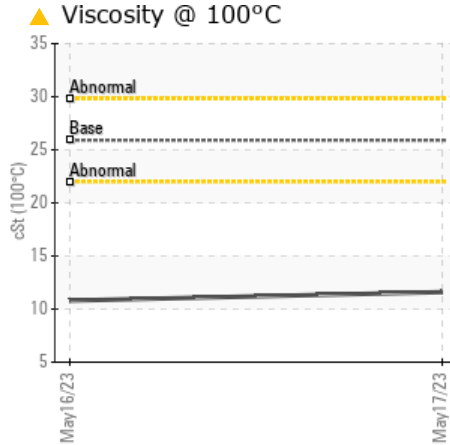
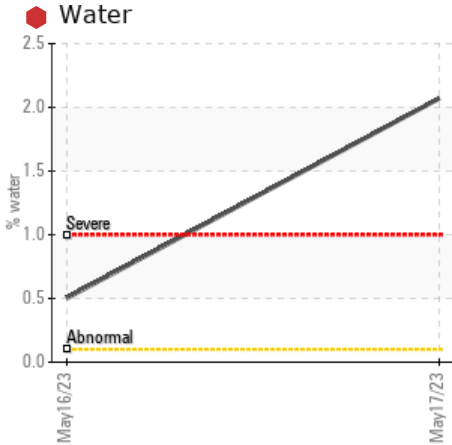
WATER



Area
[AFTER FILTER]
Machine Id
OIL-RITE MRX II
Component
Circulating System
Fluid
MOBIL SHC 630 (30 GAL)



COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	---
Water	%	ASTM D6304		2.07	0.502	---
ppm Water	ppm	ASTM D6304		20700	5020	---
Debris	scalar	*Visual	NONE	MODER	NONE	---
Appearance	scalar	*Visual	NORML	SOLID	SOLID	---
Emulsified Water	scalar	*Visual		0.2%	0.2%	---
Free Water	scalar	*Visual		10.0	10.0	---
Visc @ 40°C	cSt	ASTM D445	217.7	58.02	57.02	---
Visc @ 100°C	cSt	ASTM D445	25.9	11.6	10.8	---

Customer Id: 3MBBRO
Sample No.: TO60000781
Lab Number: 05850816
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Resample	MISSED	Jul 06 2023	?	We recommend an early resample to monitor this condition.
Check Water Access	MISSED	Jul 06 2023	?	We advise that you check for the source of water entry.

HISTORICAL DIAGNOSIS

16 May 2023 Diag: Jonathan Hester

WATER



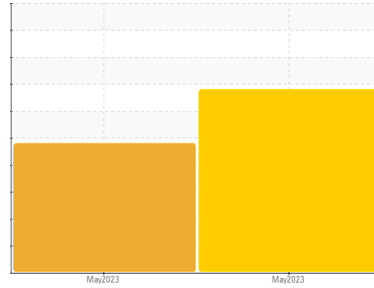
We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a moderate concentration of water present in the oil. Sample is layered with different type/density oil. The oil viscosity is lower than normal. Confirm oil type.

view report



OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Area
[AFTER FILTER]
 Machine Id
OIL-RITE MRX II
 Component
Circulating System
 Fluid
MOBIL SHC 630 (30 GAL)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a high concentration of water present in the oil. Sample is layered with different type/density oil.

Fluid Condition

The oil viscosity is lower than normal. Confirm oil type.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			TO60000781	TO60000779	---
Sample Date	Client Info			17 May 2023	16 May 2023	---
Machine Age	hrs	Client Info		16	16	---
Oil Age	hrs	Client Info		1	1	---
Oil Changed	Client Info			Changed	Changed	---
Sample Status				SEVERE	ABNORMAL	---

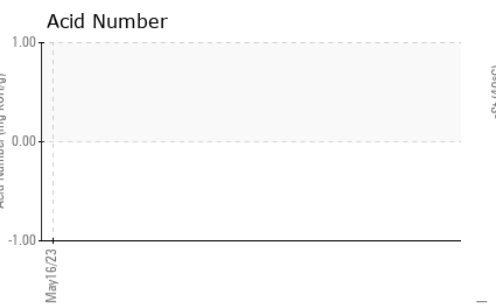
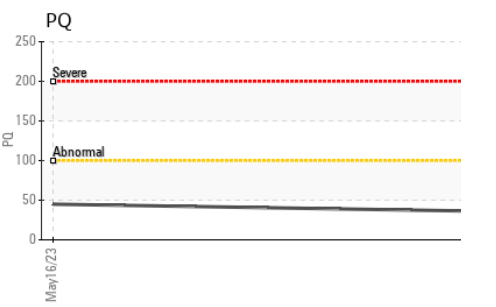
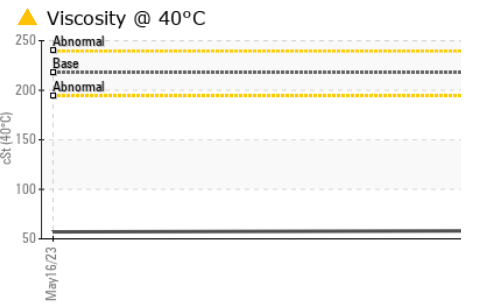
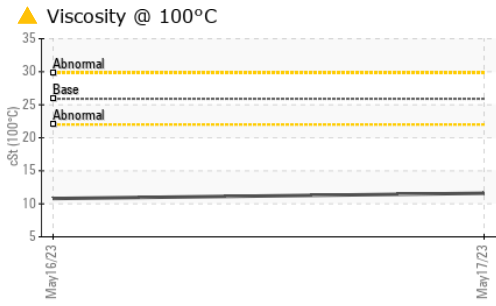
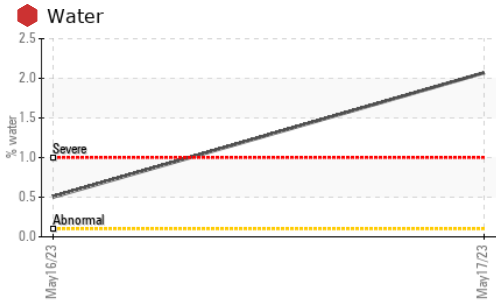
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		36	45	---
Iron	ppm	ASTM D5185m		8	16	---
Chromium	ppm	ASTM D5185m		<1	<1	---
Nickel	ppm	ASTM D5185m		0	0	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m		0	0	---
Aluminum	ppm	ASTM D5185m		0	0	---
Lead	ppm	ASTM D5185m		<1	0	---
Copper	ppm	ASTM D5185m		<1	<1	---
Tin	ppm	ASTM D5185m		0	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
Cadmium	ppm	ASTM D5185m		0	<1	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		0	<1	---
Manganese	ppm	ASTM D5185m		<1	<1	---
Magnesium	ppm	ASTM D5185m		1	<1	---
Calcium	ppm	ASTM D5185m		<1	5	---
Phosphorus	ppm	ASTM D5185m		9	20	---
Zinc	ppm	ASTM D5185m		0	0	---
Sulfur	ppm	ASTM D5185m		98	131	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m		15	14	---
Sodium	ppm	ASTM D5185m		0	<1	---
Potassium	ppm	ASTM D5185m	>20	<1	2	---
Water	%	ASTM D6304		2.07	0.502	---
ppm Water	ppm	ASTM D6304		20700	5020	---

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	MODER	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	SOLID	SOLID	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual		0.2%	0.2%	---
Free Water	scalar	*Visual		10.0	10.0	---

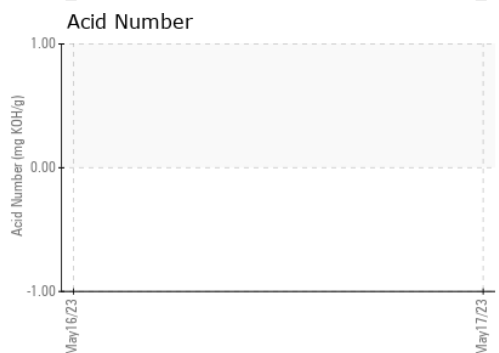
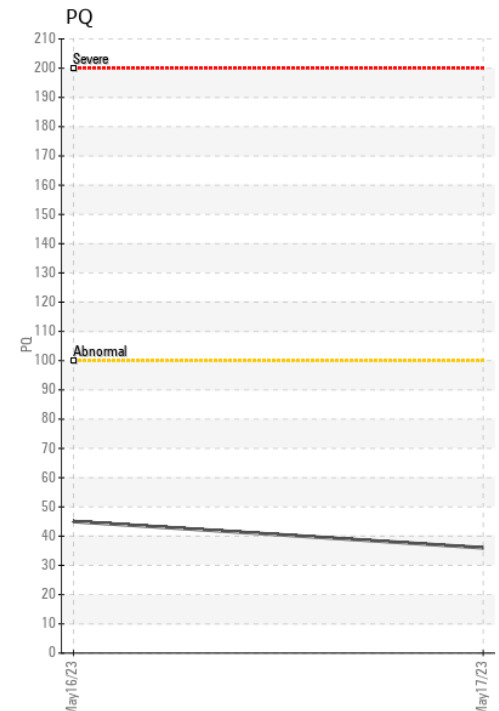
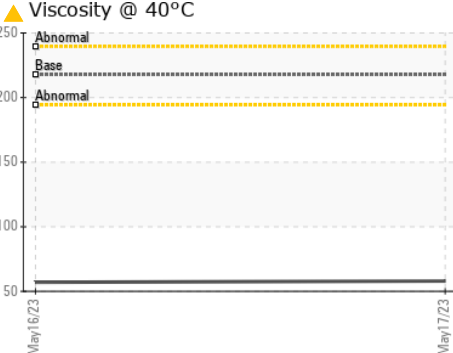
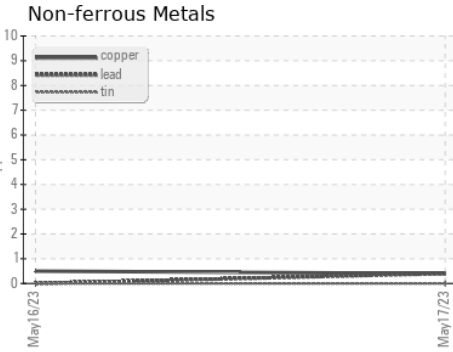
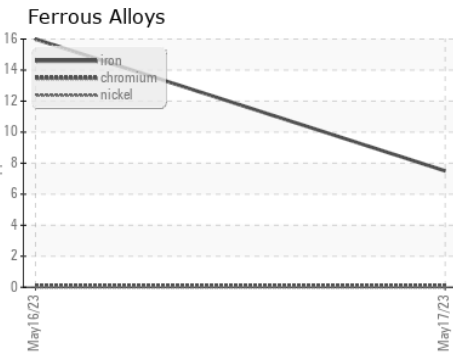
OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	217.7	▲ 58.02	▲ 57.02	---
Visc @ 100°C	cSt	ASTM D445	25.9	▲ 11.6	▲ 10.8	---
Viscosity Index (VI)	Scale	ASTM D2270	152	199	183	---

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						no image
Bottom						no image

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO60000781 **Received** : 18 May 2023
Lab Number : 05850816 **Diagnosed** : 24 May 2023
Unique Number : 10480171 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: KF, KV100, PQ, VI)

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)

3M BROWNWOOD
 4501 US 377 SOUTH
 BROWNWOOD, TX
 US 76801
 Contact: RICKY GOTCHER
 rgotcherjr@mmm.com

T:
F: