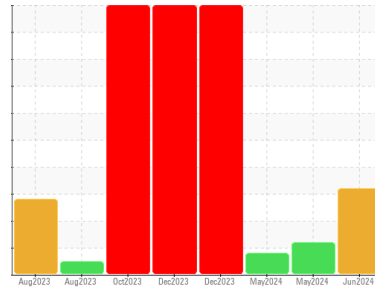




OIL ANALYSIS REPORT

Sample Rating Trend



VISUAL METAL



Area
Building 12
 Machine Id
Roll Crusher 1
 Component
Northwest Bearing
 Fluid
MOBIL MOBILGEAR 600 XP ISO 68 (3 GAL)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear

Moderate concentration of visible metal present. Gear wear is indicated.

Contamination

There is a moderate amount of visible silt present in the sample.

Fluid Condition

The oil viscosity is lower than normal. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0936852	WC0936857	WC0936862
Sample Date	Client Info	05 Jun 2024	19 May 2024	09 May 2024
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	Changed	N/A	Changed
Sample Status		ABNORMAL	ATTENTION	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >2	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >20	▲ 92	▲ 76	▲ 87
Chromium	ppm	ASTM D5185m >20	<1	<1	<1
Nickel	ppm	ASTM D5185m >20	1	0	1
Titanium	ppm	ASTM D5185m	<1	<1	1
Silver	ppm	ASTM D5185m	0	<1	<1
Aluminum	ppm	ASTM D5185m >20	2	2	4
Lead	ppm	ASTM D5185m >20	0	0	<1
Copper	ppm	ASTM D5185m >20	0	<1	1
Tin	ppm	ASTM D5185m >20	0	0	<1
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	25	39	37
Barium	ppm	ASTM D5185m	0	0	<1
Molybdenum	ppm	ASTM D5185m	0	<1	7
Manganese	ppm	ASTM D5185m	2	<1	1
Magnesium	ppm	ASTM D5185m	<1	0	2
Calcium	ppm	ASTM D5185m	3	0	9
Phosphorus	ppm	ASTM D5185m	359	300	347
Zinc	ppm	ASTM D5185m	13	0	2
Sulfur	ppm	ASTM D5185m	9857	8704	9666

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >15	9	10	22
Sodium	ppm	ASTM D5185m	3	4	0
Potassium	ppm	ASTM D5185m >20	2	0	3

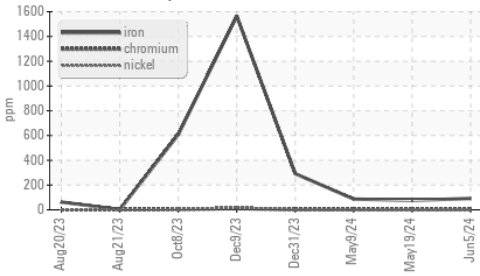
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.66	0.64	0.77

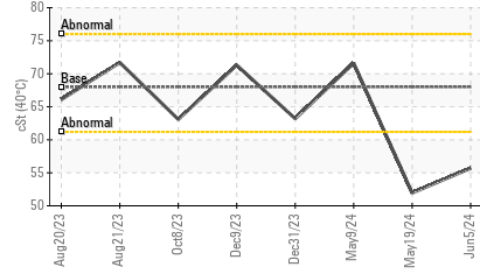


OIL ANALYSIS REPORT

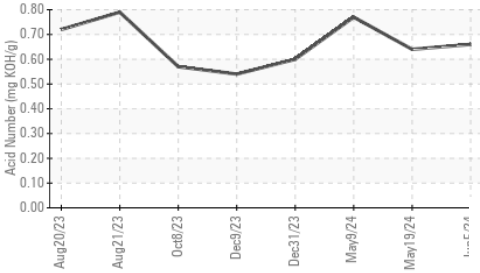
▲ Ferrous Alloys



● Viscosity @ 40°C



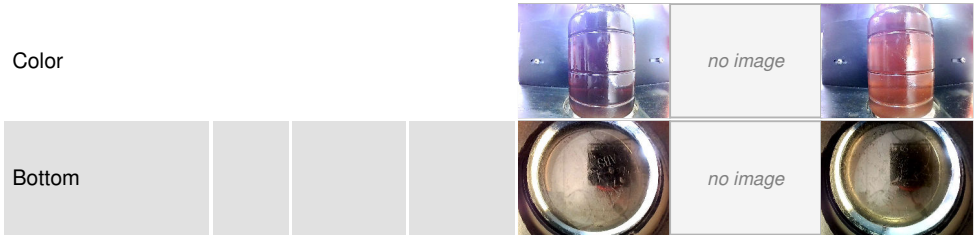
Acid Number



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	▲ MODER	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	▲ MODER	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

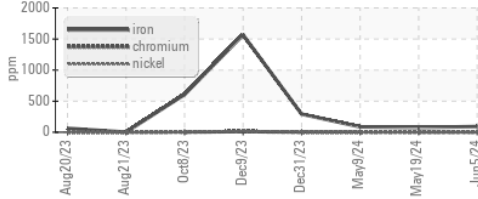
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 68	● 55.7	● 51.96	71.6

SAMPLE IMAGES	method	limit/base	current	history1	history2
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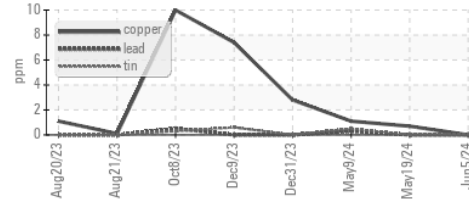


GRAPHS

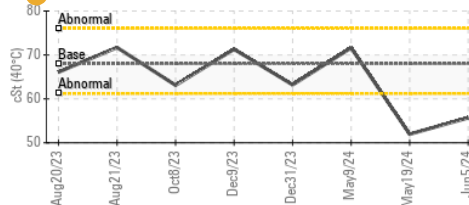
▲ Ferrous Alloys



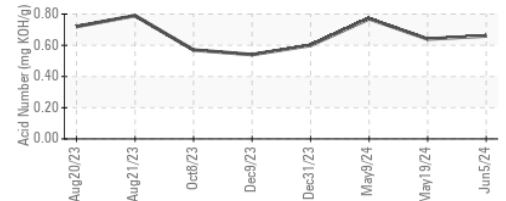
Non-ferrous Metals



● Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0936852
Lab Number : 06214869
Unique Number : 11087733
Test Package : IND 2
Received : 19 Jun 2024
Tested : 20 Jun 2024
Diagnosed : 21 Jun 2024 - Don Baldrige

3M - PITTSBORO
 4191 NC 87 S
 MONCURE, NC
 US 27559

Contact: CHARLES JARRELL
 cjarrell@mmm.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: