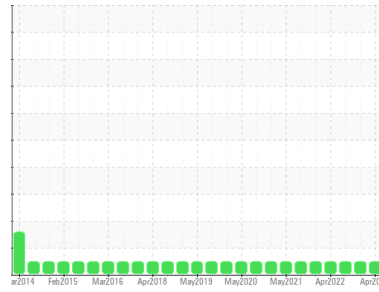




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area

CHEATHAM ANNEX

Machine Id

1BHT CRANE 1B (S/N 62510225)

Component

Hydraulic System

Fluid

MOBIL DTE 10 EXCEL 68 (680 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	WC0925629	WC0752659	WC0752680
Sample Date	Client Info	15 Apr 2024	28 Sep 2023	22 Jan 2023
Machine Age	Client Info	0	0	0
Oil Age	Client Info	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	NORMAL	NORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.05	NEG	NEG	NEG

WEAR METALS

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

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	0	0	0
Barium	ppm ASTM D5185m	0	0	2
Molybdenum	ppm ASTM D5185m	0	0	<1
Manganese	ppm ASTM D5185m	1	0	<1
Magnesium	ppm ASTM D5185m	5	4	3
Calcium	ppm ASTM D5185m	114	103	109
Phosphorus	ppm ASTM D5185m	447	440	474
Zinc	ppm ASTM D5185m	65	60	77
Sulfur	ppm ASTM D5185m	2511	2105	2700

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >15	4	4	4
Sodium	ppm ASTM D5185m	3	1	2
Potassium	ppm ASTM D5185m >20	2	0	<1

FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	288	347	422
Particles >6µm	ASTM D7647 >1300	37	103	104
Particles >14µm	ASTM D7647 >160	5	11	10
Particles >21µm	ASTM D7647 >40	2	3	3
Particles >38µm	ASTM D7647 >10	0	0	0
Particles >71µm	ASTM D7647 >3	0	0	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	15/12/10	16/14/11	16/14/10

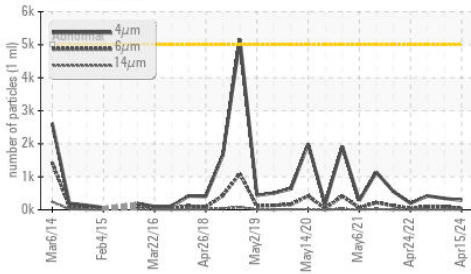
FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045	0.12	0.092	0.535

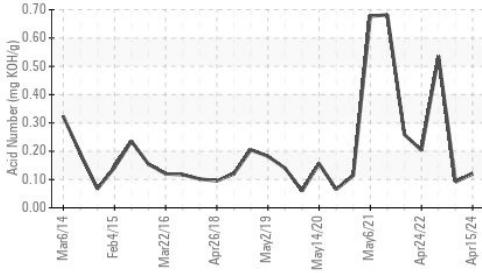


OIL ANALYSIS REPORT

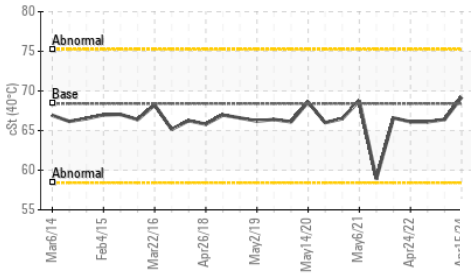
Particle Trend



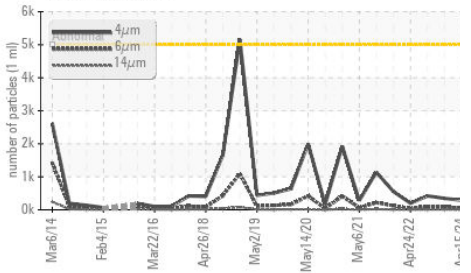
Acid Number



Viscosity @ 40°C



Particle Trend

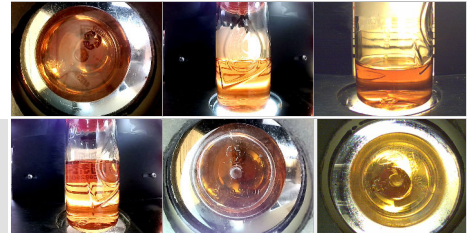


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	68.4	69.2	66.4

SAMPLE IMAGES	method	limit/base	current	history1	history2
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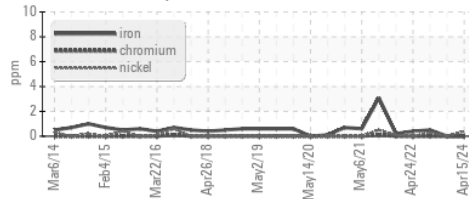
Color



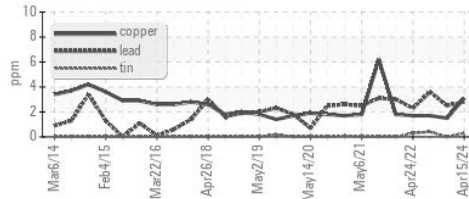
Bottom

GRAPHS

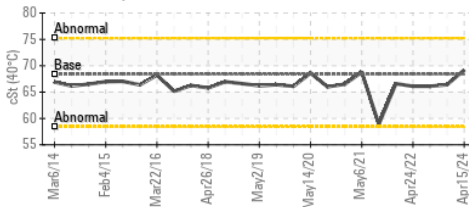
Ferrous Alloys



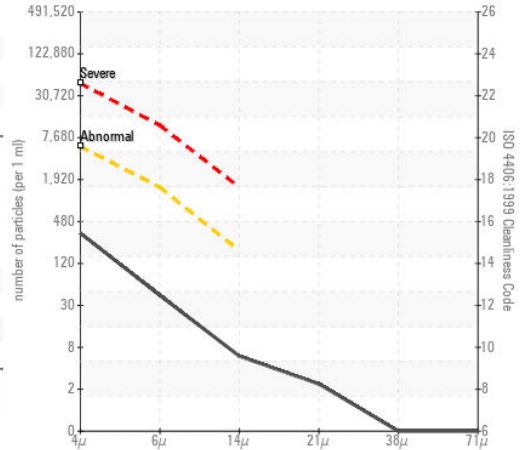
Non-ferrous Metals



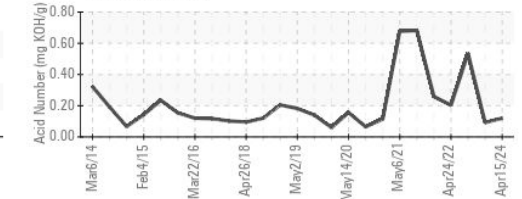
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : WC0925629
 Lab Number : 06151053
 Unique Number : 10981131
 Test Package : IND 2

Received : 16 Apr 2024
 Tested : 17 Apr 2024
 Diagnosed : 19 Apr 2024 - Don Baldrige

CARGOTEC MARINE - MACGREGOR
 525 BYRON ST, SUITE B
 CHESAPEAKE, VA
 US 23320

Contact: TARMO MAGI
 tarmo.magi@macgregor.com
 T: (757)558-4584
 F: (757)558-4581

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)