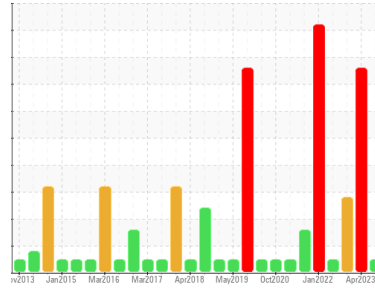




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**CHEATHAM ANNEX**  
 Machine Id  
**1BLL CRANE 1B (S/N 62510225)**

Component  
**Gearbox**  
 Fluid  
**MOBIL MOBILGEAR 600 XP 220 (5 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

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

### 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			<b>WC0752656</b>	WC0752690	WC0752723
Sample Date	Client Info			<b>01 Oct 2023</b>	22 Apr 2023	22 Jan 2023
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	SEVERE	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	<b>5</b>	28	16
Chromium	ppm	ASTM D5185m	>15	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>15	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>25	<b>4</b>	3	2
Lead	ppm	ASTM D5185m	>100	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>200	<b>0</b>	<1	<1
Tin	ppm	ASTM D5185m	>25	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>2</b>	8	9
Barium	ppm	ASTM D5185m		<b>0</b>	0	1
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>4</b>	21	<1
Calcium	ppm	ASTM D5185m		<b>0</b>	0	1
Phosphorus	ppm	ASTM D5185m		<b>341</b>	314	252
Zinc	ppm	ASTM D5185m		<b>24</b>	84	83
Sulfur	ppm	ASTM D5185m		<b>15434</b>	14548	10599

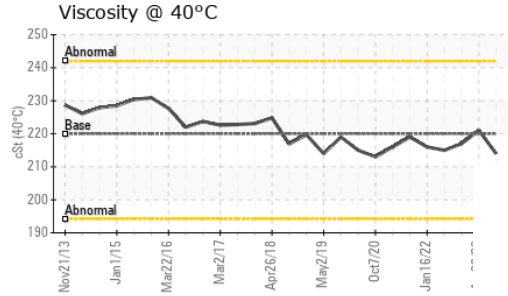
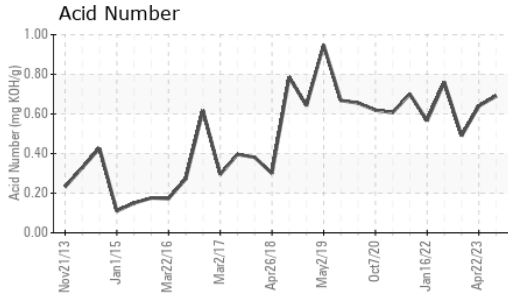
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	<b>1</b>	8	4
Sodium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	<1

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.69</b>	0.64	0.49

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	▲ MODER	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	▲ HAZY	▲ HAZY
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	0.2%	▲ 0.2%
Free Water	scalar	*Visual		<b>NEG</b>	● 1.0	NEG

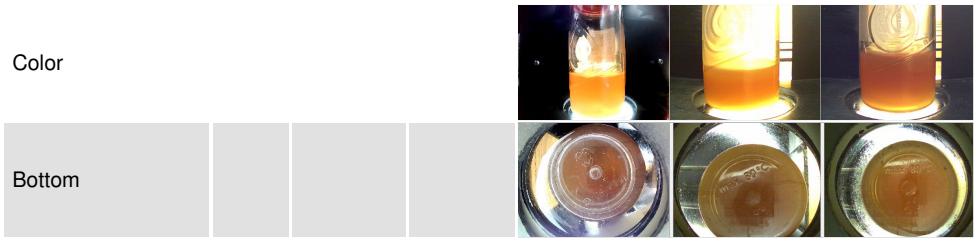


# OIL ANALYSIS REPORT

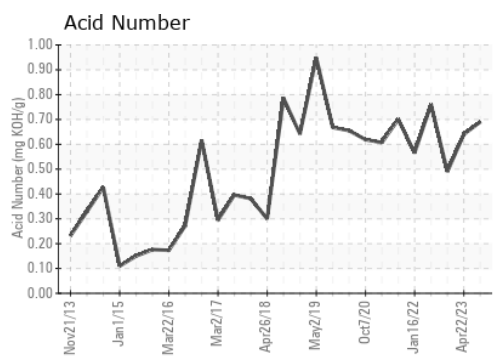
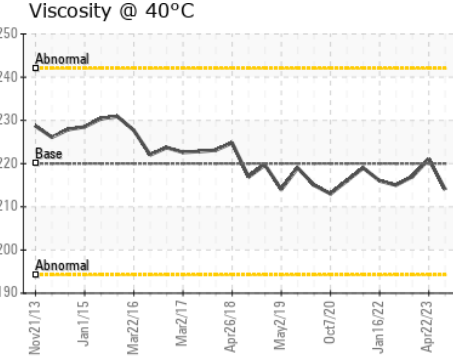
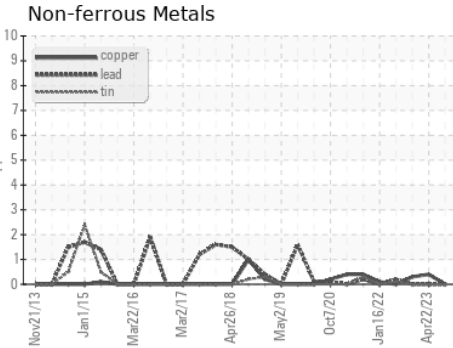
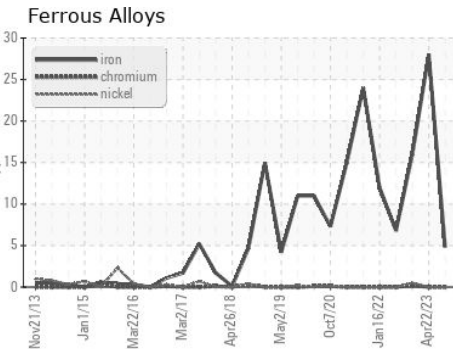


FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	220	214	221

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0752656 **Received** : 29 Sep 2023  
**Lab Number** : 05965488 **Diagnosed** : 02 Oct 2023  
**Unique Number** : 10672039 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2

**CARGOTEC MARINE - MACGREGOR**  
 525 BYRON ST, SUITE B  
 CHESAPEAKE, VA  
 US 23320  
 Contact: TARMO MAGI  
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Certificate L2367  
 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)