



# OIL ANALYSIS REPORT

WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>ABNORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**NORDBERG 52004 - BUSHINGS**  
 Component  
**Gearbox**  
 Fluid  
**SHELL OMALA S2 GX 68 (250 GAL)**

## RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0823299</b>	WC0725675	WC0725672
Sample Date		Client Info		<b>31 Jul 2023</b>	22 May 2023	10 Nov 2022
Machine Age	hrs	Client Info		<b>14100</b>	13754	13300
Oil Age	hrs	Client Info		<b>653</b>	307	935
Filter Age	hrs	Client Info		<b>346</b>	307	322
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Not Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR

The lead level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	<b>17</b>	24	58
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	<1	1
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>0</b>	0	2
Lead	ppm	ASTM D5185m	>50	<b>▲ 55</b>	37	▲ 78
Copper	ppm	ASTM D5185m	>200	<b>107</b>	79	82
Tin	ppm	ASTM D5185m	>10	<b>5</b>	6	10
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

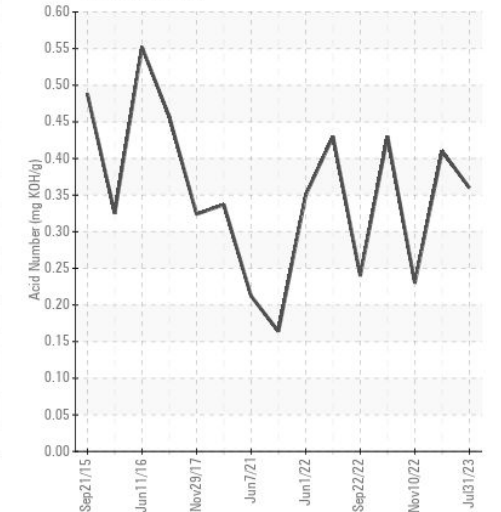
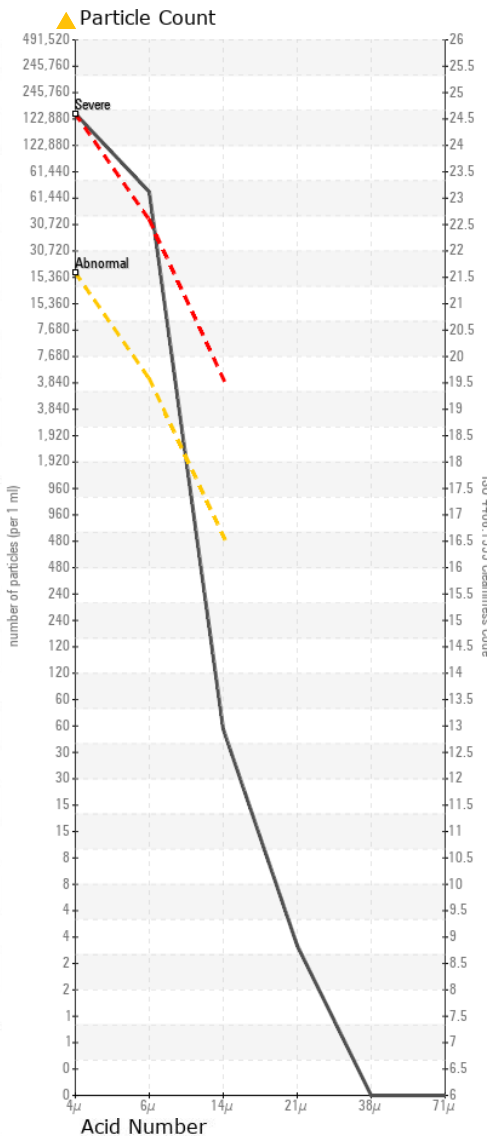
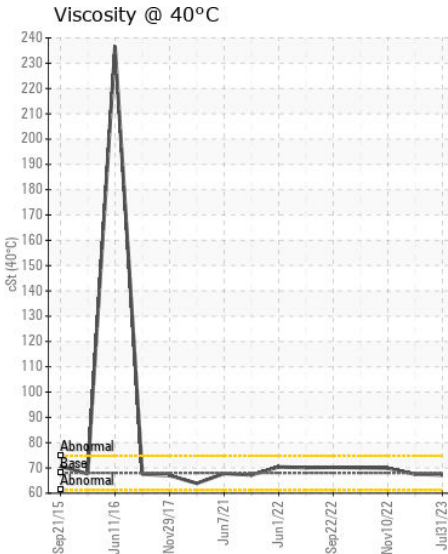
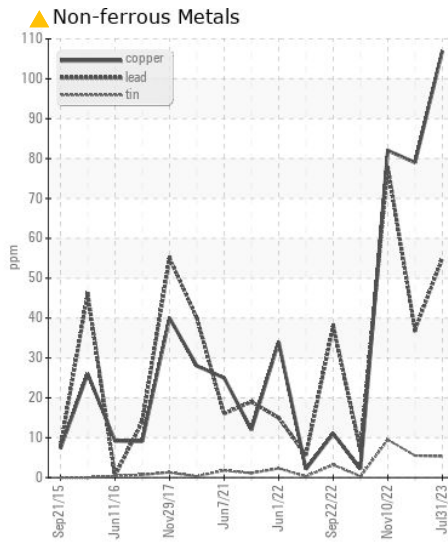
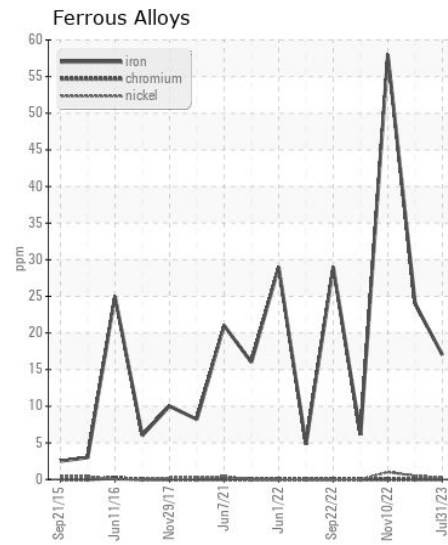
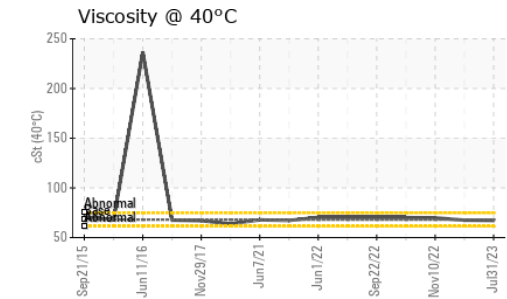
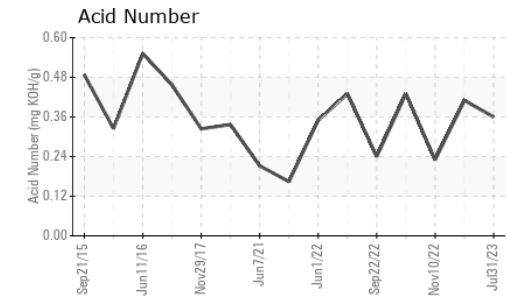
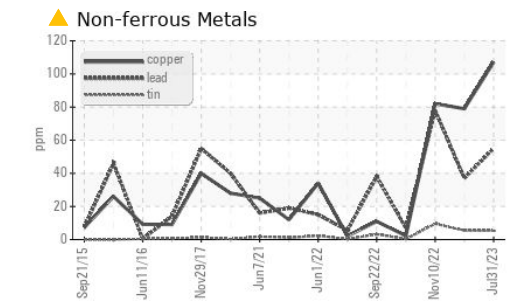
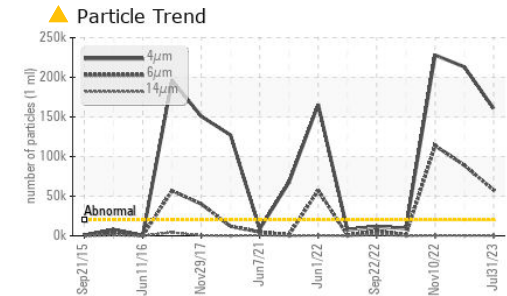
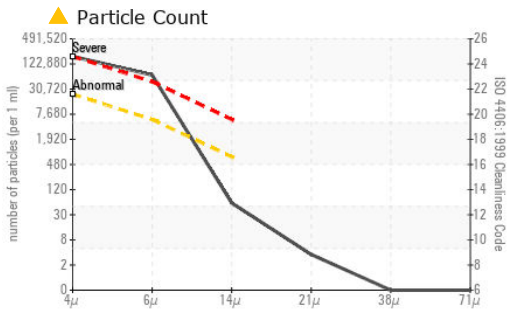
There is a high amount of silt (particulates < 14 microns in size) present in the oil. Appearance is unacceptable

Silicon	ppm	ASTM D5185m	>50	<b>4</b>	4	5
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	1
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>20000	<b>▲ 160616</b>	▲ 213125	▲ 228004
Particles >6µm		ASTM D7647	>5000	<b>▲ 57636</b>	▲ 88969	▲ 113751
Particles >14µm		ASTM D7647	>640	<b>51</b>	400	433
Particles >21µm		ASTM D7647	>160	<b>3</b>	25	37
Particles >38µm		ASTM D7647	>40	<b>0</b>	0	1
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	<b>▲ 25/23/13</b>	▲ 25/24/16	▲ 25/24/16
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	LIGHT	NONE
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>	NEG	NEG

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	1
Boron	ppm	ASTM D5185m		<b>7</b>	16	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>9</b>	10	<1
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>22</b>	24	1
Calcium	ppm	ASTM D5185m		<b>52</b>	54	10
Phosphorus	ppm	ASTM D5185m		<b>311</b>	319	289
Zinc	ppm	ASTM D5185m		<b>43</b>	43	0
Sulfur	ppm	ASTM D5185m		<b>8886</b>	9305	11109
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.36</b>	0.41	0.23
Visc @ 40°C	cSt	ASTM D445	68	<b>67.2</b>	67.5	69.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0823299 **Received** : 14 Aug 2023  
**Lab Number** : 05924196 **Tested** : 15 Aug 2023  
**Unique Number** : 10604143 **Diagnosed** : 15 Aug 2023 - Don Baldrige  
**Test Package** : MOB 2 ( Additional Tests: PrtCount )

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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