



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

Area  
**SANDY B**  
Machine Id  
[SANDY B] 006 562531-6  
Component  
Starboard Reduction Gear  
Fluid  
SHELL ROTELLA T 40 (--- GAL)

**RECOMMENDATION**

No corrective action is recommended at this time. Resample at the next service interval to monitor.

**WEAR**

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

**CONTAMINATION**

There is no indication of any contamination in the oil.

**FLUID CONDITION**

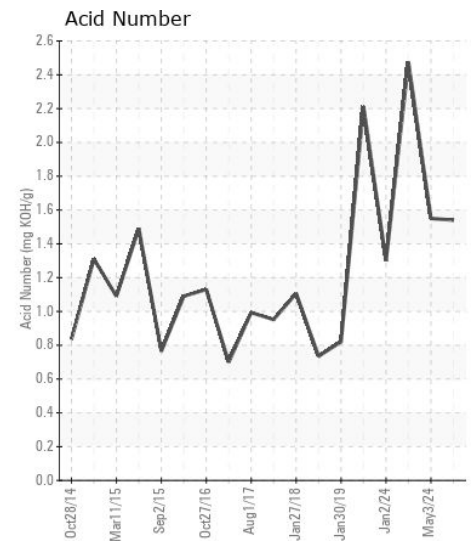
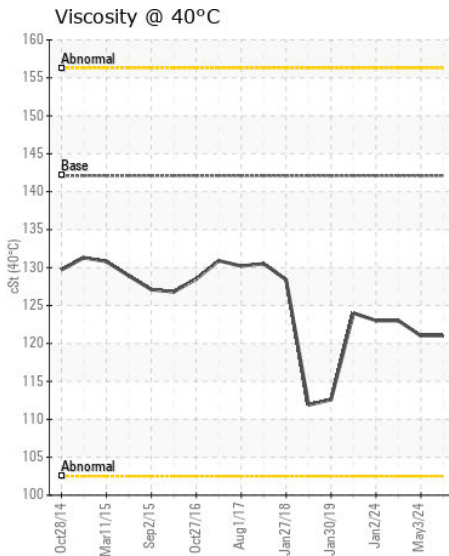
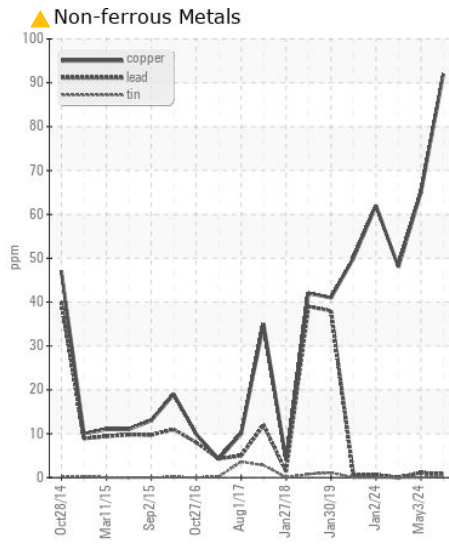
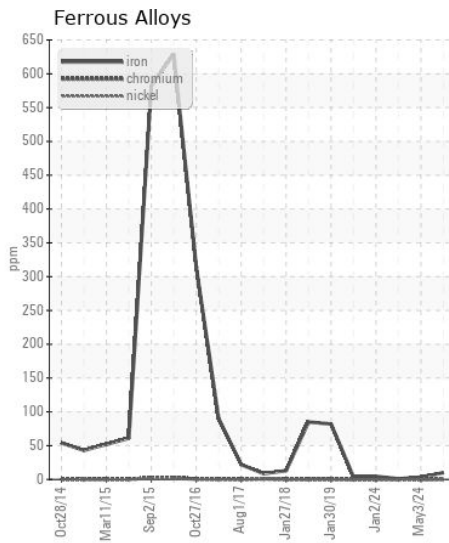
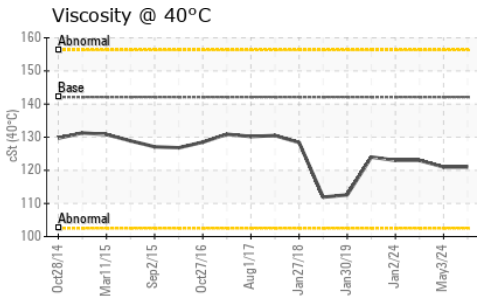
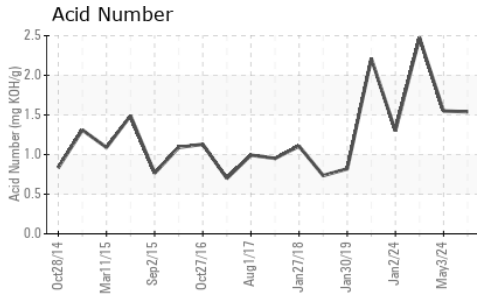
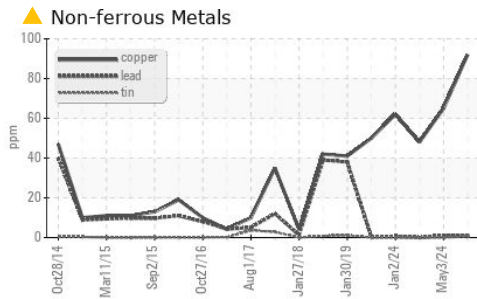
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>MW0065730</b>	MW0068801	MW0068849
Sample Date		Client Info		<b>01 Jun 2024</b>	03 May 2024	06 Apr 2024
Machine Age	hrs	Client Info		<b>5632</b>	5282	4927
Oil Age	hrs	Client Info		<b>490</b>	159	395
Filter Age	hrs	Client Info		<b>490</b>	159	395
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>ABNORMAL</b>	NORMAL	NORMAL

Iron	ppm	ASTM D5185m	>150	<b>10</b>	3	1
Chromium	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>25	<b>10</b>	10	8
Lead	ppm	ASTM D5185m	>100	<b>&lt;1</b>	1	0
Copper	ppm	ASTM D5185m	>50	<b>▲ 92</b>	65	48
Tin	ppm	ASTM D5185m	>10	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

Silicon	ppm	ASTM D5185m	>50	<b>3</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	<1	<1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG

Sodium	ppm	ASTM D5185m		<b>&lt;1</b>	4	2
Boron	ppm	ASTM D5185m	0	<b>46</b>	51	50
Barium	ppm	ASTM D5185m		<b>2</b>	<1	0
Molybdenum	ppm	ASTM D5185m	0	<b>107</b>	105	105
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m	432	<b>63</b>	72	71
Calcium	ppm	ASTM D5185m	1121	<b>2573</b>	2658	2603
Phosphorus	ppm	ASTM D5185m	996	<b>1149</b>	1107	1047
Zinc	ppm	ASTM D5185m	881	<b>1131</b>	1226	1154
Sulfur	ppm	ASTM D5185m		<b>3614</b>	4238	3809
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.54</b>	1.55	2.474
Visc @ 40°C	cSt	ASTM D445	142.1	<b>121</b>	121	123



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : MW0065730 **Received** : 24 Jun 2024  
**Lab Number** : 06218868 **Tested** : 25 Jun 2024  
**Unique Number** : 11097065 **Diagnosed** : 26 Jun 2024 - Sean Felton  
**Test Package** : MAR 2

**INGRAM BARGE**  
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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)