



WEAR	MARGINAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
SANDY B
Machine Id
[SANDY B] 004 562531-4
Component
Port 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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0061660	MW0061338	MW0061389
Sample Date		Client Info		02 Jan 2024	30 Nov 2023	01 Nov 2023
Machine Age	hrs	Client Info		3822	3403	3007
Oil Age	hrs	Client Info		1235	831	431
Filter Age	hrs	Client Info		1235	831	431
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Not Changed	Not Changed	Not Changed
Sample Status				MARGINAL	ABNORMAL	ABNORMAL

WEAR

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

Iron	ppm	ASTM D5185m	>150	5	19	<1
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	1	0
Lead	ppm	ASTM D5185m	>100	<1	1	0
Copper	ppm	ASTM D5185m	>50	▲ 77	▲ 74	▲ 55
Tin	ppm	ASTM D5185m	>10	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

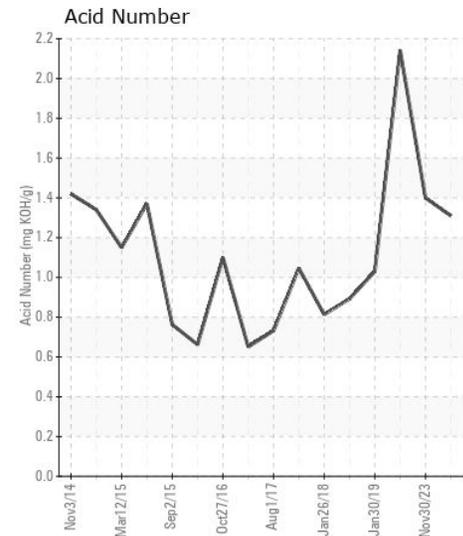
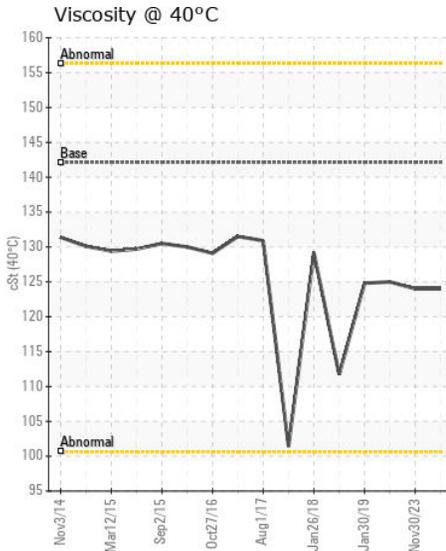
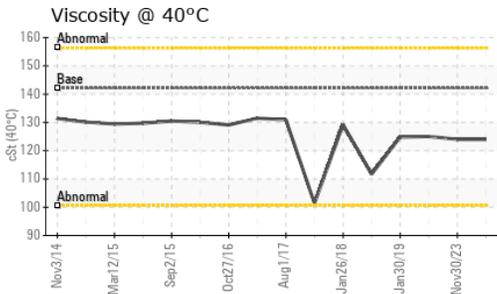
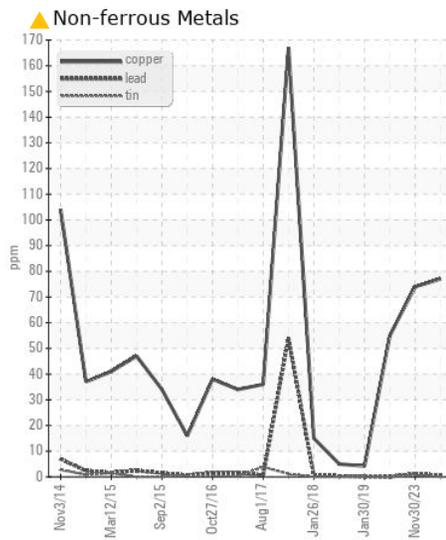
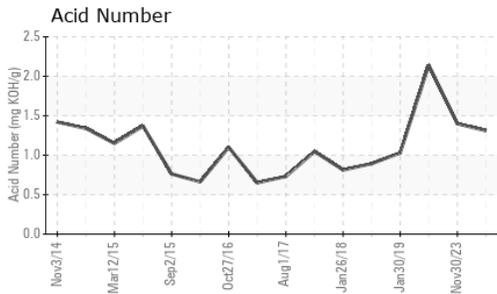
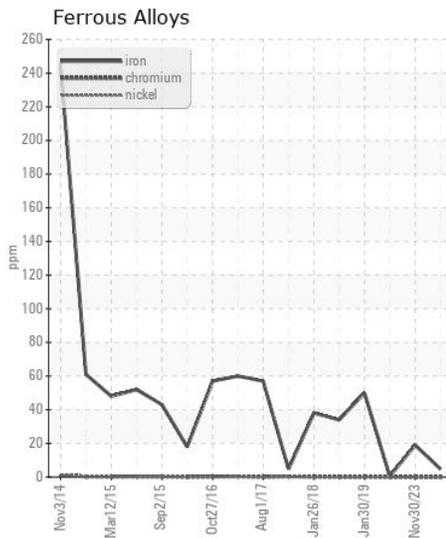
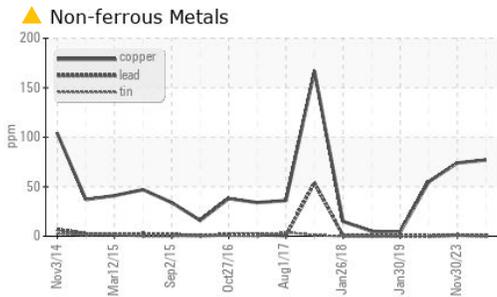
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	3	6	2
Potassium	ppm	ASTM D5185m	>20	<1	0	0
Water		WC Method	>0.1	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	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		3	3	3
Boron	ppm	ASTM D5185m	0	33	42	43
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m	0	101	103	100
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m	432	58	46	68
Calcium	ppm	ASTM D5185m	1121	2553	2615	2813
Phosphorus	ppm	ASTM D5185m	996	1073	1069	1066
Zinc	ppm	ASTM D5185m	881	1105	1146	1238
Sulfur	ppm	ASTM D5185m		3531	3945	3645
Acid Number (AN)	mg KOH/g	ASTM D8045		1.31	1.40	2.141
Visc @ 40°C	cSt	ASTM D445	142.1	124	124	125



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0061660 **Received** : 17 Jan 2024
Lab Number : 06063743 **Diagnosed** : 19 Jan 2024
Unique Number : 10835125 **Diagnostician** : Doug Bogart
Test Package : MAR 2

INGRAM BARGE
 900 S 3RD ST
 PADUCAH, KY
 US 42003
 Contact: KIM PRATER
 kim.prater@ingrambarge.com
 T: (270)415-4467
 F: (615)695-3697

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)