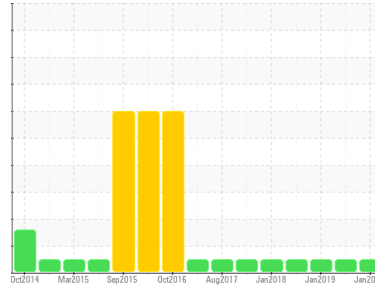




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



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

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.

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		MW0061657	MW0061388	MWM691466
Sample Date	Client Info		02 Jan 2024	01 Nov 2023	30 Jan 2019
Machine Age	hrs	Client Info	3702	2887	0
Oil Age	hrs	Client Info	1235	431	0
Oil Changed	Client Info		Not Chngd	Not Chngd	N/A
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >150	4	4	82
Chromium	ppm	ASTM D5185m >10	0	0	<1
Nickel	ppm	ASTM D5185m >10	0	0	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	<1	<1	<1
Lead	ppm	ASTM D5185m >100	<1	<1	38
Copper	ppm	ASTM D5185m >50	62	50	41
Tin	ppm	ASTM D5185m >10	0	0	1
Antimony	ppm	ASTM D5185m >5	---	---	0
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	35	38	212
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m 0	96	101	28
Manganese	ppm	ASTM D5185m	0	0	1
Magnesium	ppm	ASTM D5185m 432	59	56	80
Calcium	ppm	ASTM D5185m 1121	2461	2425	2080
Phosphorus	ppm	ASTM D5185m 996	1029	1028	658
Zinc	ppm	ASTM D5185m 881	1065	1140	729
Sulfur	ppm	ASTM D5185m	3565	3383	3496

CONTAMINANTS

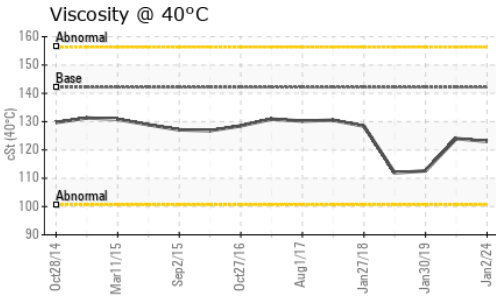
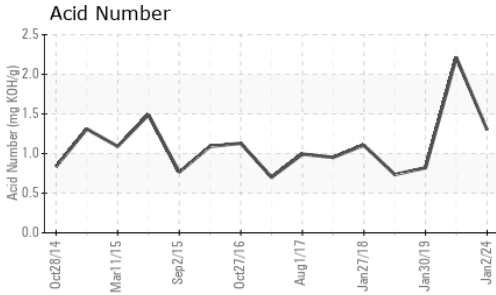
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	3	3	6
Sodium	ppm	ASTM D5185m	3	4	29
Potassium	ppm	ASTM D5185m >20	<1	<1	3

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.30	2.212	0.820



OIL ANALYSIS REPORT



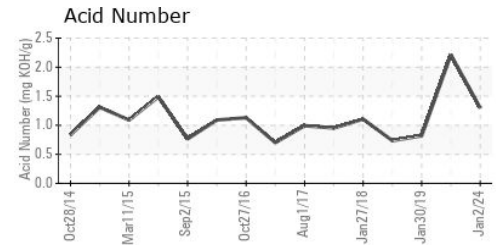
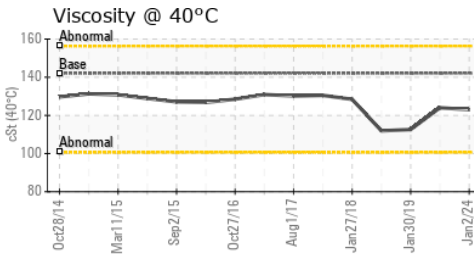
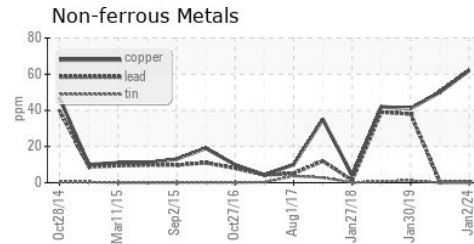
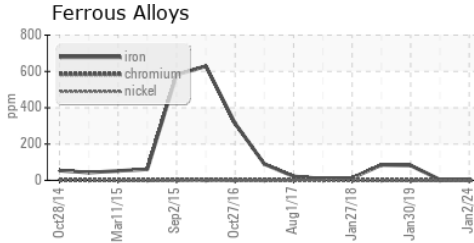
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	142.1	123	124

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------

Color			no image	no image	no image
Bottom			no image	no image	no image

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0061657 **Recieved** : 17 Jan 2024
Lab Number : 06063742 **Diagnosed** : 19 Jan 2024
Unique Number : 10835124 **Diagnostician** : Doug Bogart
Test Package : MAR 2

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)

INGRAM BARGE
 900 S 3RD ST
 PADUCAH, KY
 US 42003

Contact: KIM PRATER
 kim.prater@ingrambarga.com
 T: (270)415-4467
 F: (615)695-3697