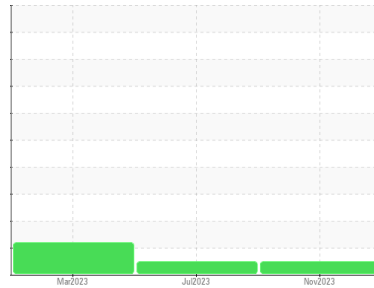




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
LIM_MLU1 LIM_MLU1

Component
Inboard Pump

Fluid
NOT GIVEN (--- GAL)

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			RP0032529	RP0033076	RP0032770
Sample Date	Client Info			14 Nov 2023	20 Jul 2023	22 Mar 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	4	7	15
Chromium	ppm	ASTM D5185m	>5	0	0	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	0
Titanium	ppm	ASTM D5185m	>3	<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>7	0	<1	<1
Lead	ppm	ASTM D5185m	>12	4	5	10
Copper	ppm	ASTM D5185m	>30	14	11	11
Tin	ppm	ASTM D5185m	>9	2	4	▲ 12
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		<1	<1	<1

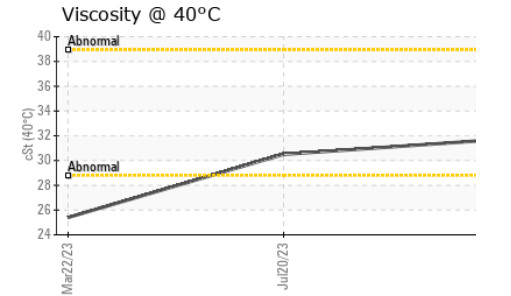
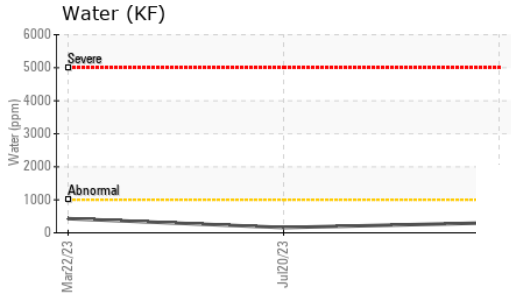
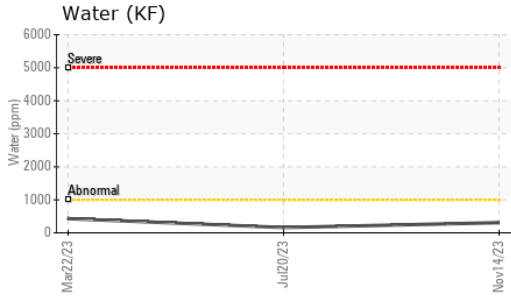
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		49	61	24
Calcium	ppm	ASTM D5185m		0	1	4
Phosphorus	ppm	ASTM D5185m		0	14	63
Zinc	ppm	ASTM D5185m		8	12	21

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>60	3	2	3
Sodium	ppm	ASTM D5185m		3	3	3
Potassium	ppm	ASTM D5185m	>20	0	2	0
Water	%	ASTM D6304	>.1	0.030	0.016	0.043
ppm Water	ppm	ASTM D6304	>1000	308	160.0	430

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.33	0.33	0.29

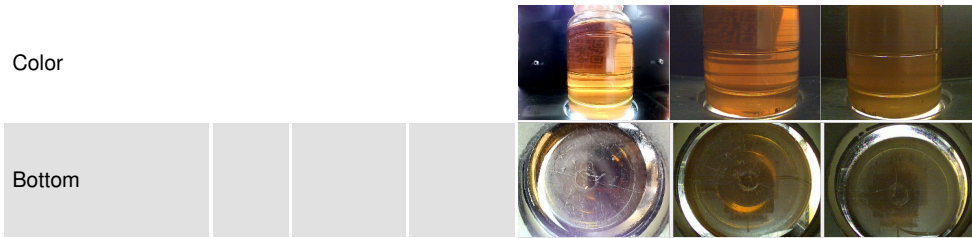
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	LIGHT	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>.1	NEG	NEG	0.2%
Free Water	scalar	*Visual		NEG	NEG	0.2%

OIL ANALYSIS REPORT

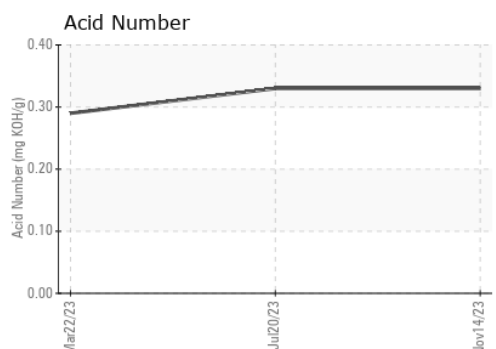
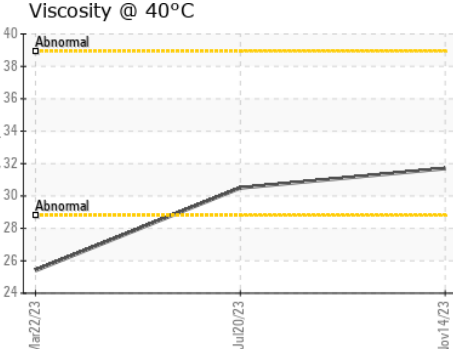
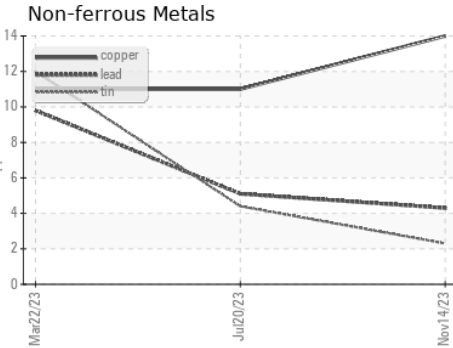
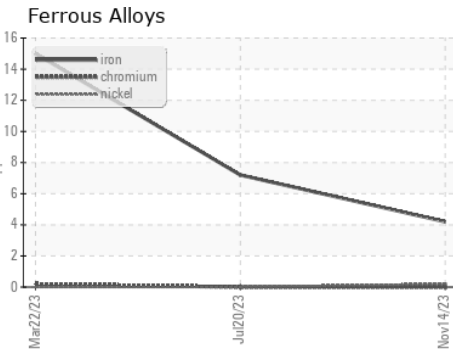


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		31.7	30.5	25.4

SAMPLE IMAGES		method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0032529 **Received** : 06 Dec 2023
Lab Number : **06026550** **Diagnosed** : 08 Dec 2023
Unique Number : 10776341 **Diagnostician** : Jonathan Hester
Test Package : IND 2

ENERGY TRANSFER - LIMA
 1520 BUCKEYE RD
 LIMA, OH
 US 45804

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)

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 T: (419)618-1505
 F: