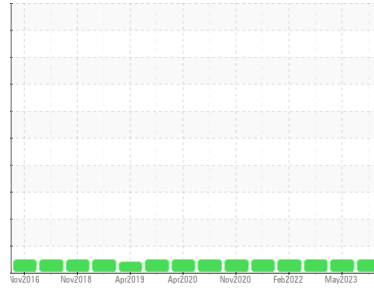




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Area
MELT SHOP - AOD
 Machine Id
MELT SHOP - 1 CONVERTER TILTING (S/N 16-3000-0130)
 Component
Gearbox
 Fluid
GEAR OIL ISO 320 (--- QTS)

DIAGNOSIS

Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

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	RP0038349	RP0034455	RP0026340
Sample Date	Client Info	13 Oct 2023	11 May 2023	29 Jun 2022
Machine Age	hrs	0	0	0
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	NORMAL	NORMAL

WEAR METALS

method	limit/base	current	history1	history2	
PQ	ASTM D8184	24	21	23	
Iron	ppm	ASTM D5185m >200	11	10	3
Chromium	ppm	ASTM D5185m >15	<1	<1	0
Nickel	ppm	ASTM D5185m >15	<1	<1	0
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	0	<1	0
Lead	ppm	ASTM D5185m >100	<1	0	0
Copper	ppm	ASTM D5185m >200	2	<1	<1
Tin	ppm	ASTM D5185m >25	0	0	<1
Antimony	ppm	ASTM D5185m >5	---	---	---
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 50	18	15	13
Barium	ppm	ASTM D5185m 15	2	0	2
Molybdenum	ppm	ASTM D5185m 15	<1	<1	<1
Manganese	ppm	ASTM D5185m	0	<1	0
Magnesium	ppm	ASTM D5185m 50	3	0	<1
Calcium	ppm	ASTM D5185m 50	14	11	5
Phosphorus	ppm	ASTM D5185m 350	188	227	159
Zinc	ppm	ASTM D5185m 100	6	0	9

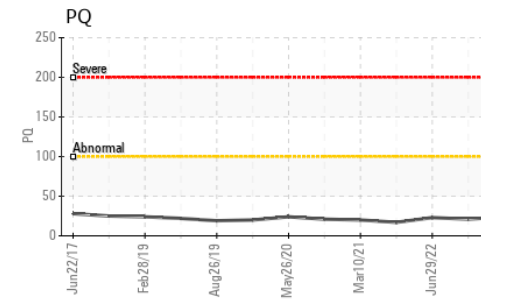
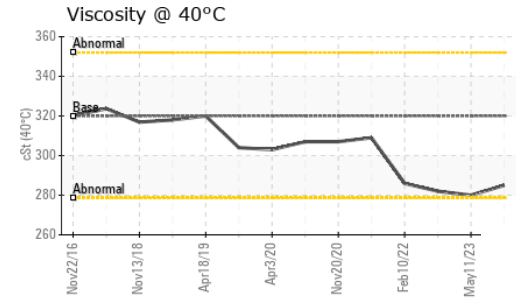
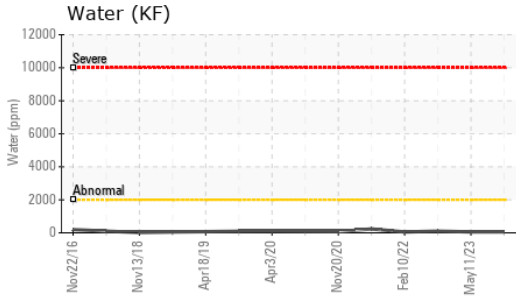
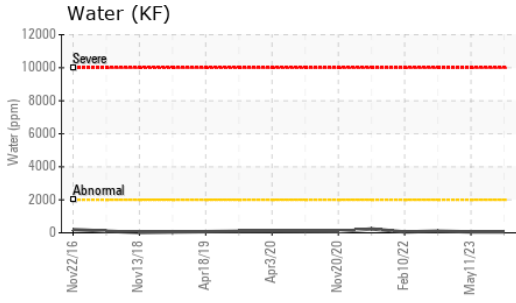
CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >50	3	2	2
Sodium	ppm	ASTM D5185m	0	1	0
Potassium	ppm	ASTM D5185m >20	<1	1	<1
Water	%	ASTM D6304 >0.2	0.005	0.005	0.010
ppm Water	ppm	ASTM D6304 >2000	54.2	55.0	101.5

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.85	0.42	0.48	0.61

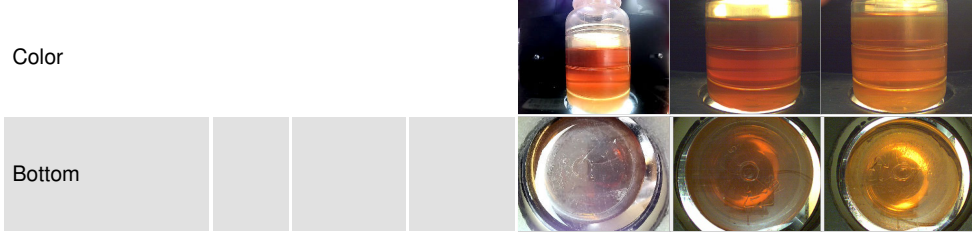
OIL ANALYSIS REPORT



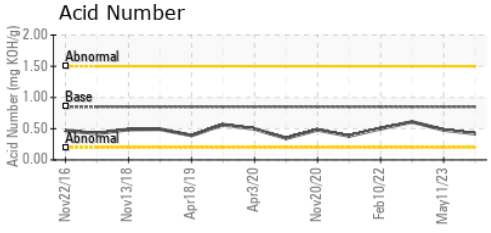
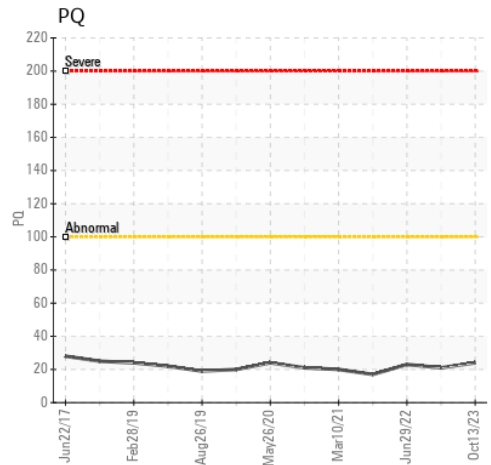
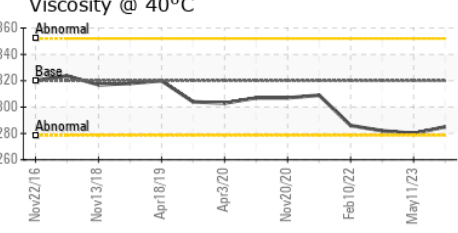
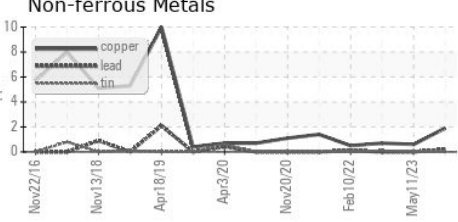
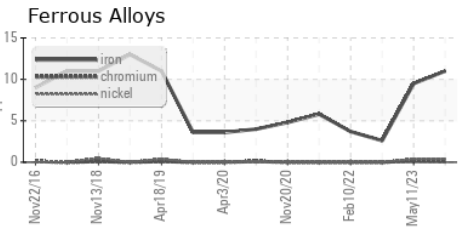
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 320	285	280	282

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0038349 **Received** : 16 Oct 2023
Lab Number : 05979824 **Diagnosed** : 17 Oct 2023
Unique Number : 10697119 **Diagnostician** : Wes Davis
Test Package : IND 2 (Additional Tests: PQ)

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 CALVERT, AL
 US 36513
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 Mario.johnson@outokumpu.com
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 F: x:

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)