



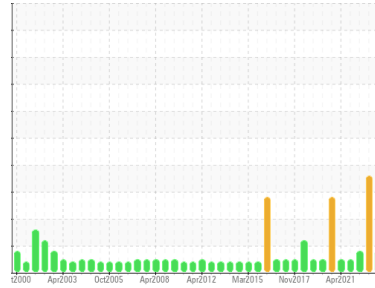
OIL ANALYSIS REPORT

Sample Rating Trend

ISO



Area
Temboard/Finishing/Pulp Preparation
 Machine Id
N/A N/A [806-375-248] TB Roll Up-Ender Hydraulic Unit
 Component
Hydraulic System
 Fluid
ESSO NUTO H ISO 46 (500 LTR)



DIAGNOSIS

Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0861527	WC0803277	WC0745498
Sample Date	Client Info		15 Oct 2023	15 Apr 2023	15 Oct 2022
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			ABNORMAL	SEVERE	ATTENTION

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>20	1	<1	1
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>20	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	<1	<1	0
Lead	ppm	ASTM D5185(m)	>20	1	2	2
Copper	ppm	ASTM D5185(m)	>20	12	16	19
Tin	ppm	ASTM D5185(m)	>20	0	<1	<1
Antimony	ppm	ASTM D5185(m)		0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	0	0	0	<1
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)	5	<1	0	0
Calcium	ppm	ASTM D5185(m)	50	52	51	51
Phosphorus	ppm	ASTM D5185(m)	330	351	373	374
Zinc	ppm	ASTM D5185(m)	410	429	419	418
Sulfur	ppm	ASTM D5185(m)	2700	5643	5227	5250
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

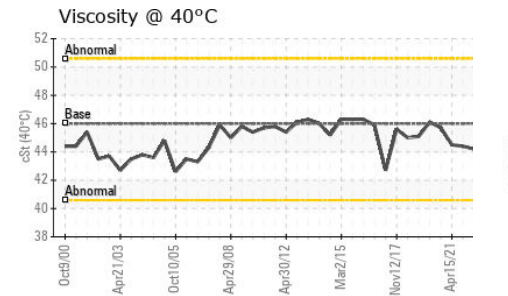
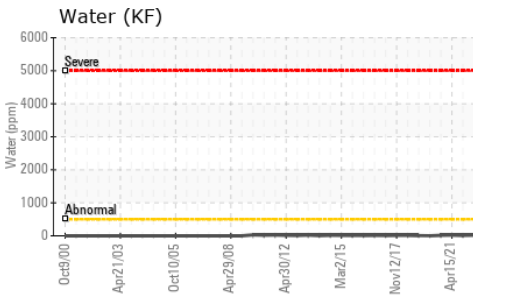
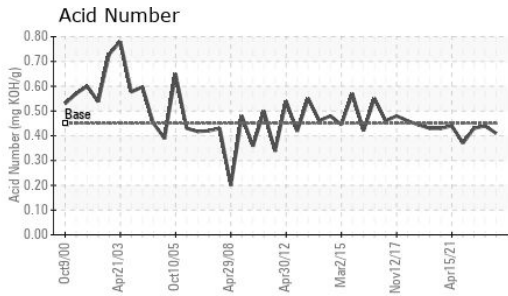
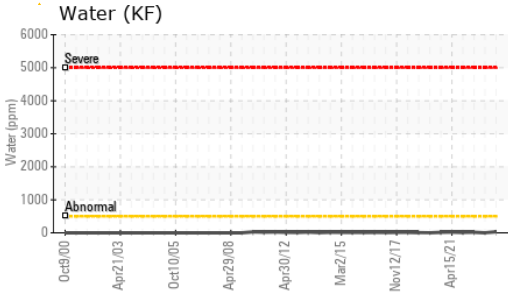
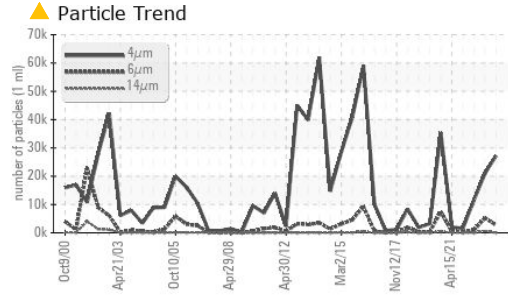
CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>15	<1	1	2
Sodium	ppm	ASTM D5185(m)		1	2	2
Potassium	ppm	ASTM D5185(m)	>20	4	0	<1
Water	%	ASTM D6304*	>0.05	0.003	0.00	0.002
ppm Water	ppm	ASTM D6304*	>500	32	0.00	18.1

FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		27217	21023	11550
Particles >6µm	ASTM D7647	>640	2698	5299	984
Particles >14µm	ASTM D7647	>160	36	594	32
Particles >21µm	ASTM D7647	>40	7	188	3
Particles >38µm	ASTM D7647	>10	1	6	0
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>--/16/14	22/19/12	22/20/16	21/17/12

OIL ANALYSIS REPORT

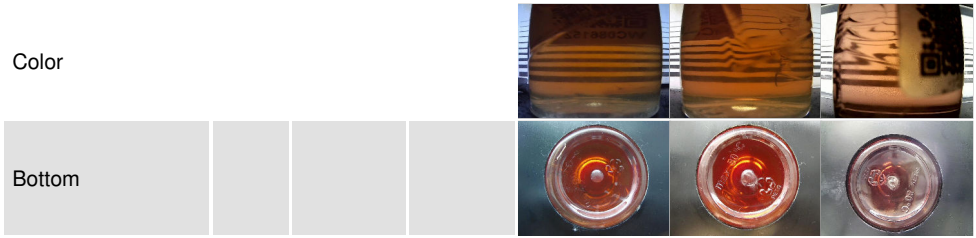


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.45	0.41	0.44	0.43

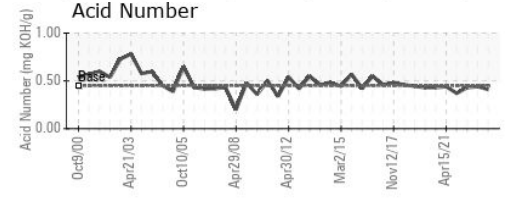
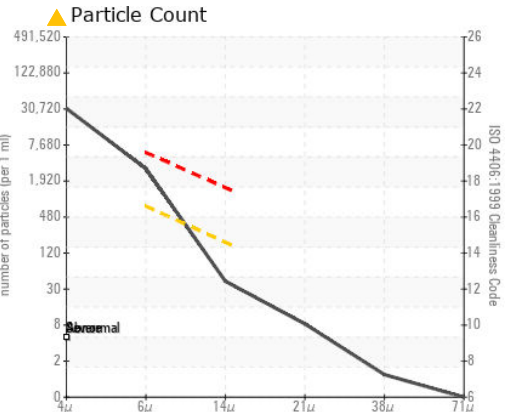
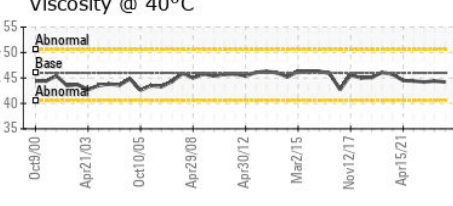
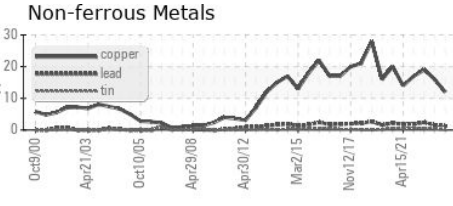
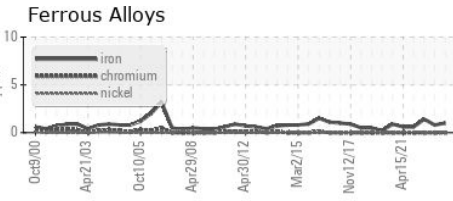
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46	44.2	44.4	44.2

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0861527 **Received** : 11 Jan 2024
Lab Number : **02608207** **Diagnosed** : 16 Jan 2024
Unique Number : 5709293 **Diagnostician** : Wes Davis
Test Package : IND 2 (Additional Tests: KF)

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To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.