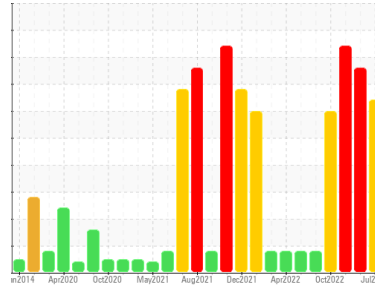


PROBLEM SUMMARY

Sample Rating Trend



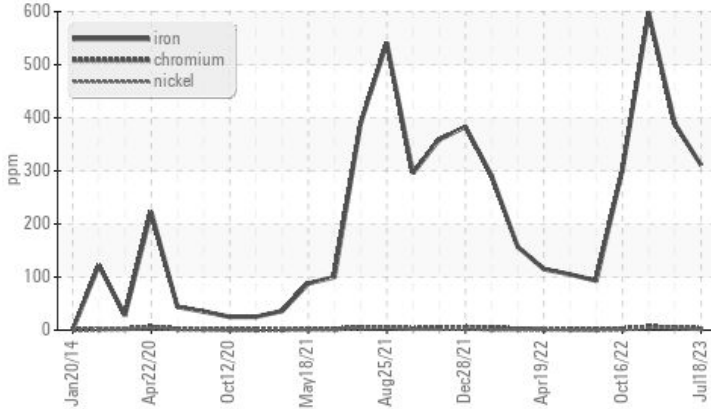
WEAR



Area
Pulp Mill A-Line
 Machine Id
5A ThickStockPumpInput West End (S/N Warren 125 HD)
 Component
Drive End Pump
 Fluid
ROYAL PURPLE SYNERGY 90/220 (5 GAL)

COMPONENT CONDITION SUMMARY

Ferrous Alloys



RECOMMENDATION

We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	SEVERE	SEVERE
Iron	ppm	ASTM D5185m	>90	311	389	598
Debris	scalar	*Visual	NONE	MODER	LIGHT	NONE

Customer Id: INTTEX
 Sample No.: RP0031078
 Lab Number: 05902862
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

27 Mar 2023 Diag: Don Baldrige

WEAR



We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Gear wear is indicated. Free water present. The AN level is acceptable for this fluid.

[view report](#)



27 Feb 2023 Diag: Doug Bogart

WEAR



We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. The iron level is severe. Appearance is milky. There is a moderate concentration of water present in the oil. The oil viscosity is higher than normal. Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid.

[view report](#)



16 Oct 2022 Diag: Don Baldrige

WEAR



We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Gear wear is indicated. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

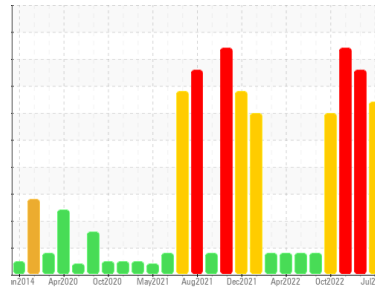
[view report](#)





OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
Pulp Mill A-Line
 Machine Id
5A ThickStockPumpInput West End (S/N Warren 125 HD)
 Component
Drive End Pump
 Fluid
ROYAL PURPLE SYNERGY 90/220 (5 GAL)

DIAGNOSIS

- Recommendation**
 We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.
- Wear**
 Gear wear is indicated.
- Contamination**
 Moderate concentration of visible dirt/debris present in the oil.
- Fluid Condition**
 The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			RP0031078	RP0031081	RP0031086
Sample Date	Client Info			18 Jul 2023	27 Mar 2023	27 Feb 2023
Machine Age	mths	Client Info		0	0	0
Oil Age	mths	Client Info		0	0	0
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				SEVERE	SEVERE	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	311	389	598
Chromium	ppm	ASTM D5185m	>5	3	5	6
Nickel	ppm	ASTM D5185m	>5	<1	3	4
Titanium	ppm	ASTM D5185m	>3	0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>7	7	5	6
Lead	ppm	ASTM D5185m	>12	<1	0	0
Copper	ppm	ASTM D5185m	>30	1	2	2
Tin	ppm	ASTM D5185m	>9	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0

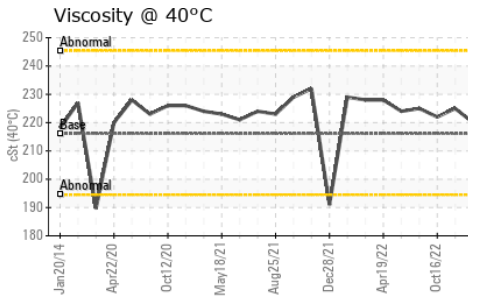
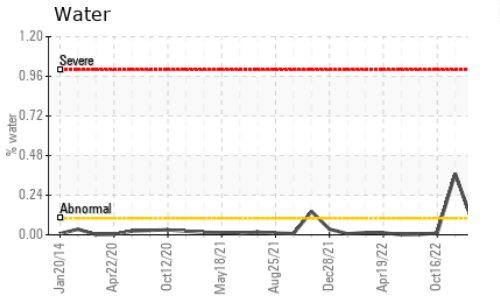
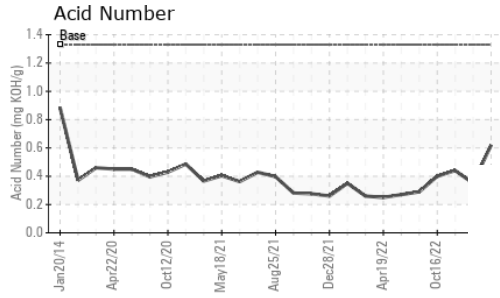
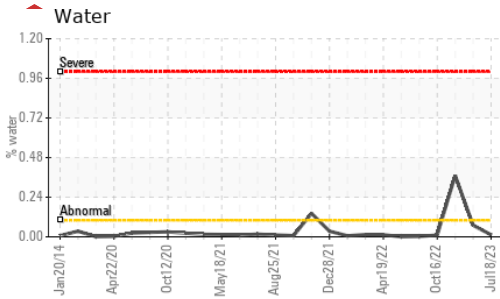
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	2	5
Molybdenum	ppm	ASTM D5185m		<1	<1	<1
Manganese	ppm	ASTM D5185m		4	4	6
Magnesium	ppm	ASTM D5185m		0	6	7
Calcium	ppm	ASTM D5185m		20	46	47
Phosphorus	ppm	ASTM D5185m	370	460	289	329
Zinc	ppm	ASTM D5185m		0	9	10

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>60	9	6	7
Sodium	ppm	ASTM D5185m		1	<1	2
Potassium	ppm	ASTM D5185m	>20	1	<1	<1
Water	%	ASTM D6304		0.012	0.070	0.371
ppm Water	ppm	ASTM D6304	>.1	127.6	700	3710

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.33	0.62	0.35	0.44

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	MODER	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	MILKY
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual		NEG	0.2%	0.2%
Free Water	scalar	*Visual		NEG	0.2%	0.2%

OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	216.1	232	220	225

SAMPLE IMAGES		method	limit/base	current	history1	history2
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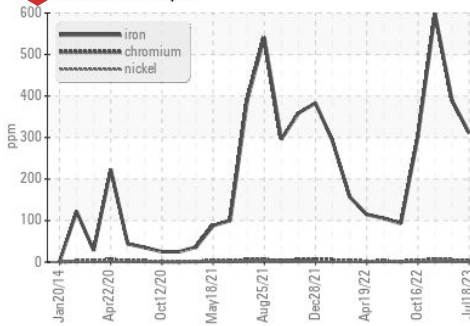
Color

Bottom

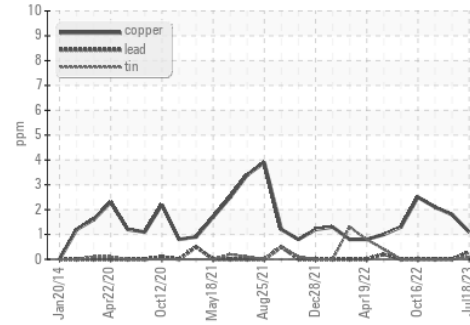


GRAPHS

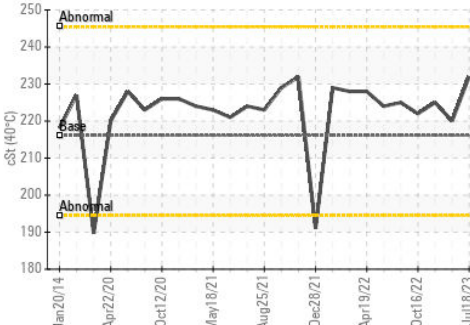
Ferrous Alloys



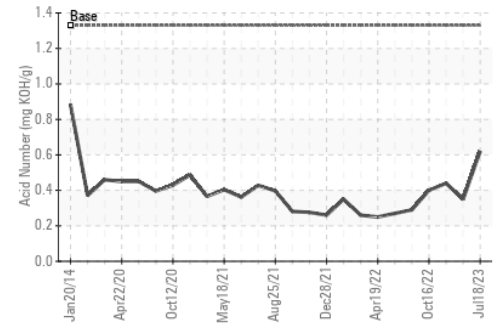
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0031078 **Received** : 19 Jul 2023
Lab Number : **05902862** **Diagnosed** : 21 Jul 2023
Unique Number : 10564218 **Diagnostician** : Don Baldrige
Test Package : IND 2

GRAPHIC PACKAGING INTERNATIONAL
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 QUEEN CITY, TX
 US 75572
 Contact: DAVID COTHREN
 david.cothren@graphicpkg.com
 T: (903)796-1690
 F: (903)796-1969

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)