



**PERFORMANCE
UNDER
PRESSURE**

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
No. 1 Paper Machine
Machine Id
1 PM 1ST DRY DRIVE STR#13 611-25-01A (S/N M027565-19)
Component
Gearbox
Fluid
ROYAL PURPLE SYNERGY 90/220 (22 GAL)

RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RP0039747	RP0038178	RP0038207
Sample Date		Client Info		16 May 2024	13 Mar 2024	29 Dec 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	28	39	30
Chromium	ppm	ASTM D5185m	>15	0	0	0
Nickel	ppm	ASTM D5185m	>15	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	0	0	0
Lead	ppm	ASTM D5185m	>100	0	0	0
Copper	ppm	ASTM D5185m	>200	1	<1	2
Tin	ppm	ASTM D5185m	>25	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

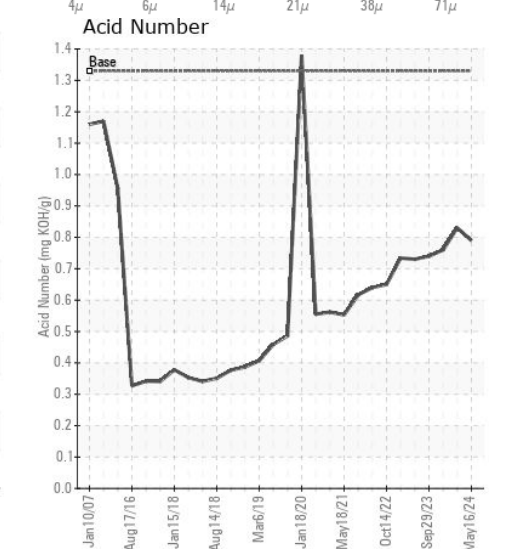
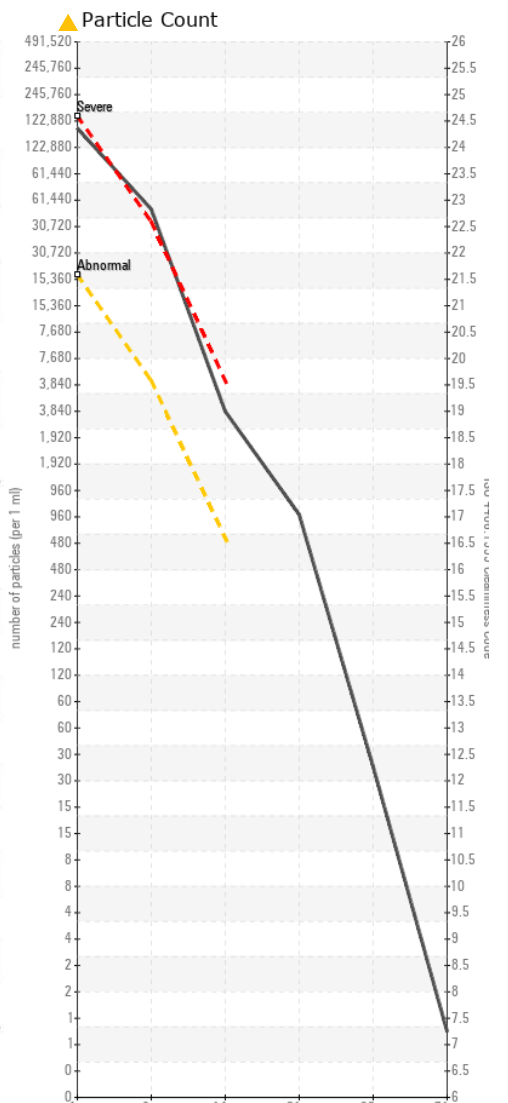
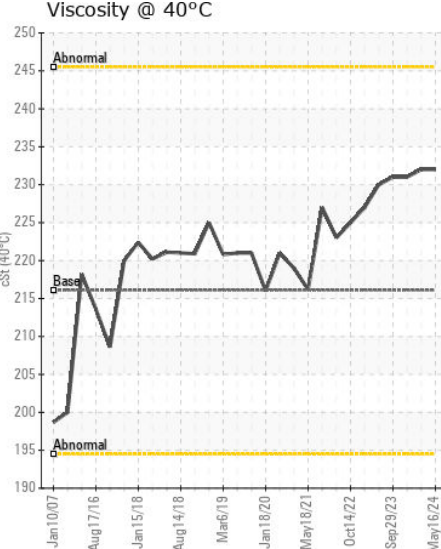
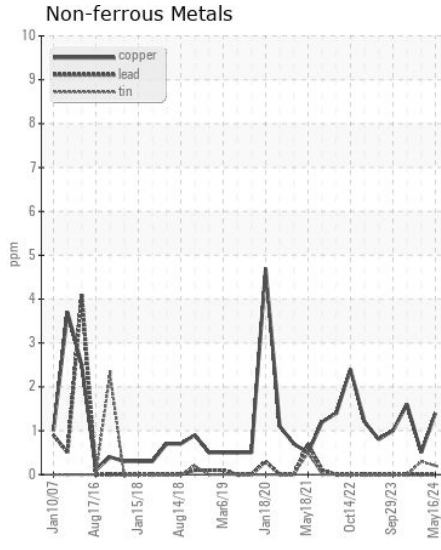
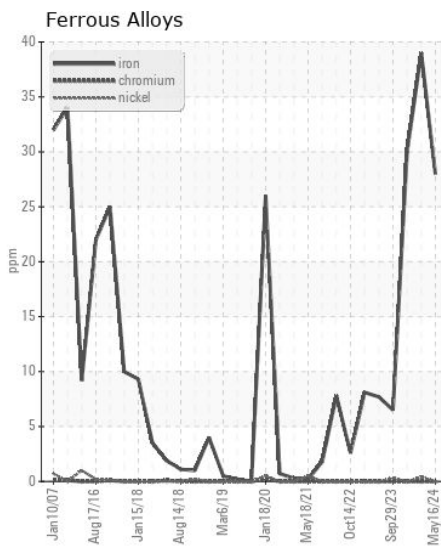
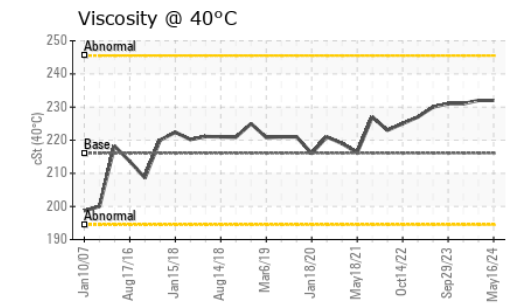
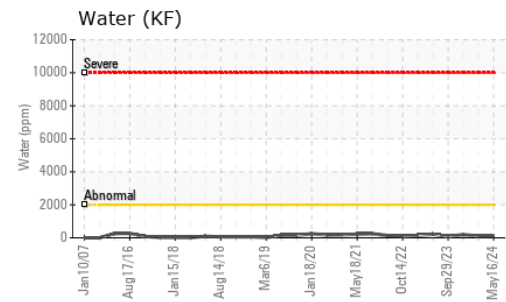
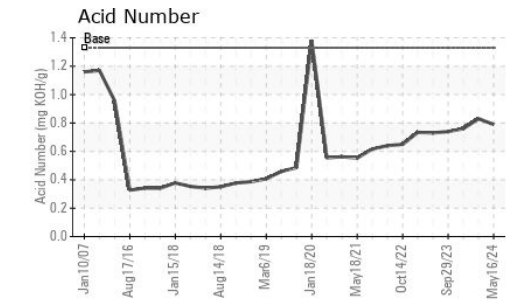
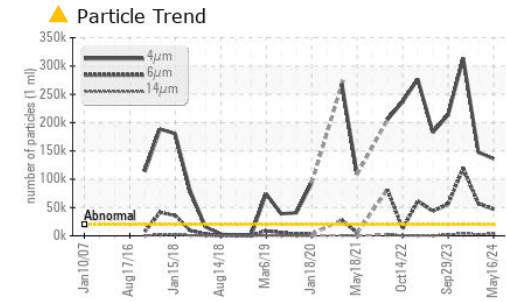
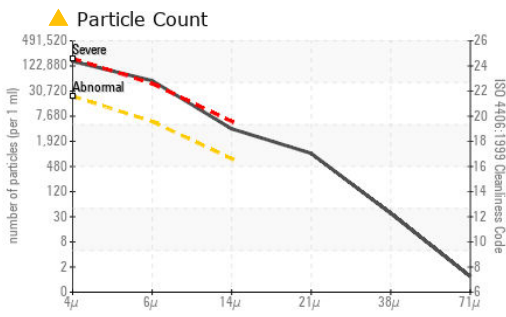
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>50	10	8	9
Potassium	ppm	ASTM D5185m	>20	1	<1	0
Water	%	ASTM D6304	>0.2	0.012	0.010	0.019
ppm Water	ppm	ASTM D6304	>2000	125	106	195
Particles >4µm		ASTM D7647	>20000	▲ 136123	▲ 147503	▲ 313782
Particles >6µm		ASTM D7647	>5000	▲ 47140	▲ 57017	▲ 119171
Particles >14µm		ASTM D7647	>640	▲ 3346	▲ 2715	▲ 4089
Particles >21µm		ASTM D7647	>160	▲ 867	▲ 611	▲ 604
Particles >38µm		ASTM D7647	>40	32	24	17
Particles >71µm		ASTM D7647	>10	1	1	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 24/23/19	▲ 24/23/19	▲ 25/24/19
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	>0.2	NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		<1	<1	0
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		0	<1	0
Calcium	ppm	ASTM D5185m		0	<1	0
Phosphorus	ppm	ASTM D5185m	370	16	16	9
Zinc	ppm	ASTM D5185m		0	0	0
Acid Number (AN)	mg KOH/g	ASTM D8045	1.33	0.79	0.83	0.76
Visc @ 40°C	cSt	ASTM D445	216.1	232	232	231



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0039747
Lab Number : 06187646
Unique Number : 11044398
Test Package : IND 2 (Additional Tests: PrtCount)
Received : 22 May 2024
Tested : 23 May 2024
Diagnosed : 24 May 2024 - Don Baldrige
 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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