



PERFORMANCE
UNDER
PRESSURE

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
No. 1 Paper Machine
Machine Id
1 PM 1ST Press Bottom Roll Drive Str.#5 (S/N MO27565-5)
Component
Gear Unit
Fluid
ROYAL PURPLE SYNERGY 90/220 (19 GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		RP0039741	RP0038172	RP0038205
Sample Date		Client Info		16 May 2024	22 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	>150	146	133	112
Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
Nickel	ppm	ASTM D5185m	>10	<1	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	<1	<1
Lead	ppm	ASTM D5185m	>100	<1	0	0
Copper	ppm	ASTM D5185m	>50	1	<1	1
Tin	ppm	ASTM D5185m	>10	<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

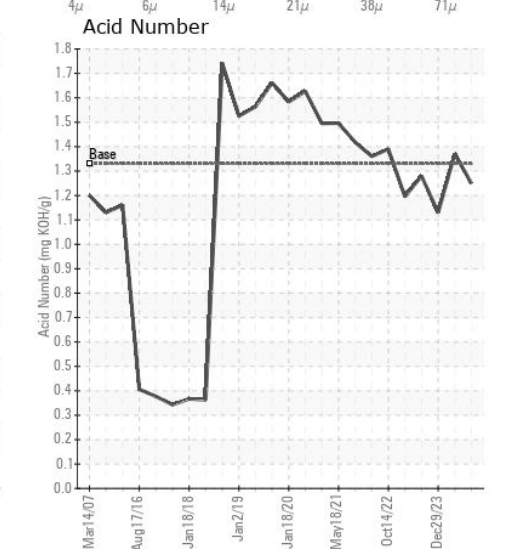
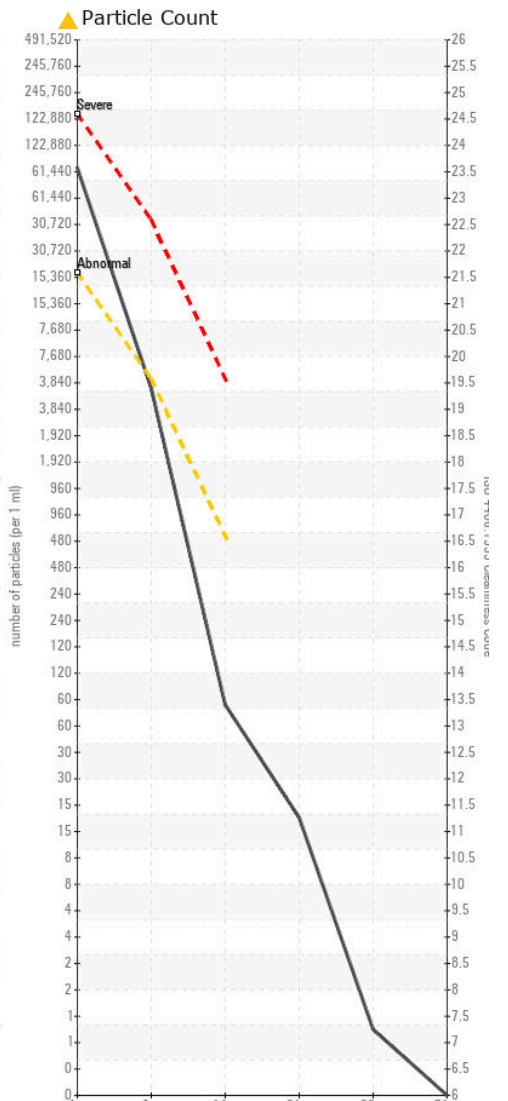
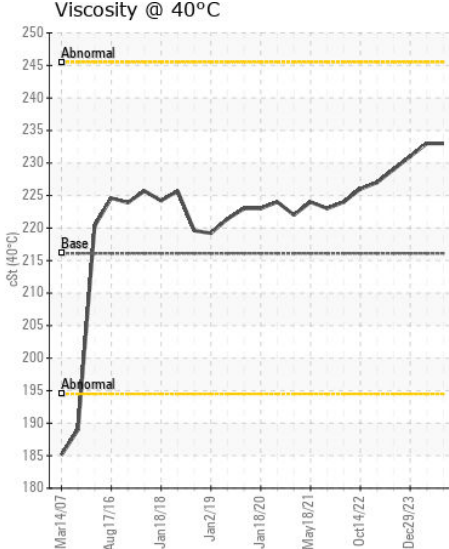
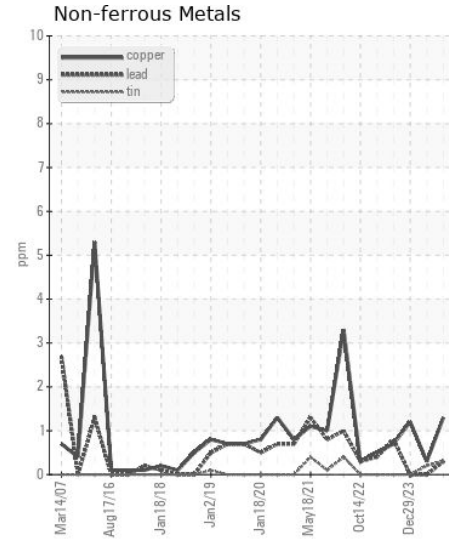
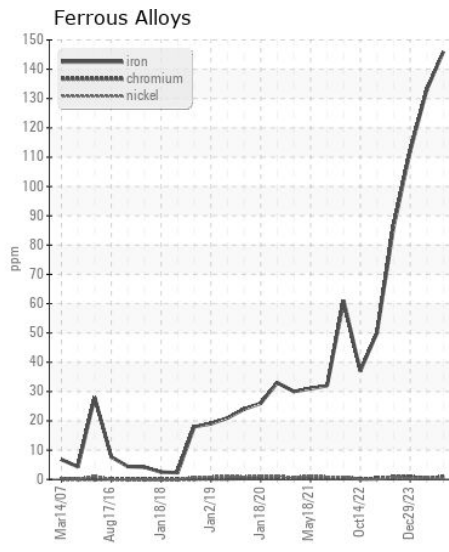
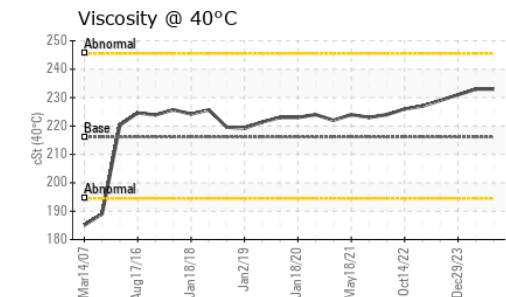
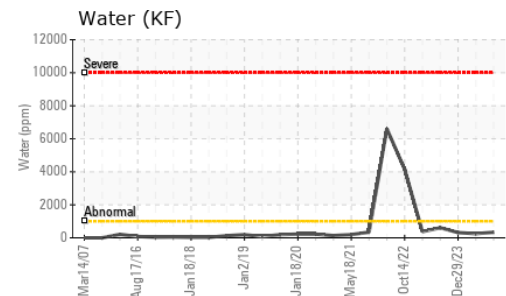
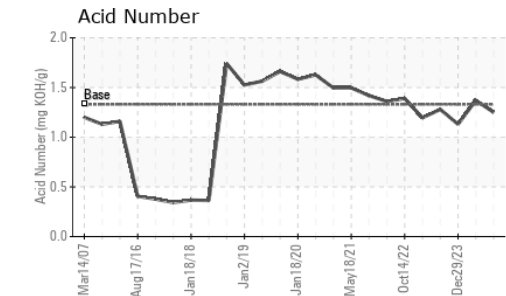
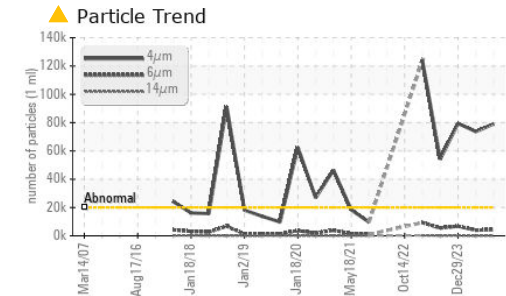
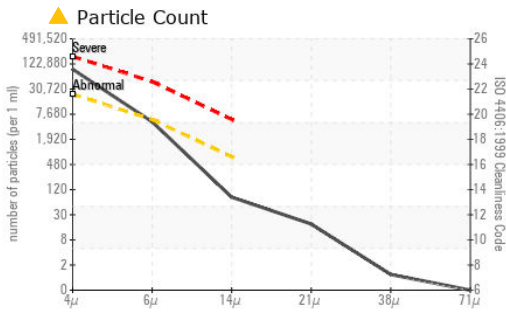
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>50	8	6	6
Potassium	ppm	ASTM D5185m	>20	2	1	0
Water	%	ASTM D6304	>0.1	0.033	0.025	0.031
ppm Water	ppm	ASTM D6304	>1000	339	251	319
Particles >4µm		ASTM D7647	>20000	▲ 79092	▲ 73638	▲ 79457
Particles >6µm		ASTM D7647	>5000	4403	● 3978	● 6802
Particles >14µm		ASTM D7647	>640	70	62	195
Particles >21µm		ASTM D7647	>160	16	12	39
Particles >38µm		ASTM D7647	>40	1	0	1
Particles >71µm		ASTM D7647	>10	0	0	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 23/19/13	▲ 23/19/13	▲ 23/20/15
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	>0.1	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		7	6	4
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		12	8	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		3	2	2
Magnesium	ppm	ASTM D5185m		1	<1	0
Calcium	ppm	ASTM D5185m		79	71	44
Phosphorus	ppm	ASTM D5185m	370	866	843	787
Zinc	ppm	ASTM D5185m		920	875	817
Acid Number (AN)	mg KOH/g	ASTM D8045	1.33	1.25	1.37	1.13
Visc @ 40°C	cSt	ASTM D445	216.1	233	233	231



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0039741 **Received** : 22 May 2024
Lab Number : 06187656 **Tested** : 23 May 2024
Unique Number : 11044408 **Diagnosed** : 24 May 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: PrtCount)
 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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