PLANT

PetroCard™ MORE THAN JUST FUEL.

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
PAPER MACHINE
Machine Id
701.0150 Refiner #6
Component
Gearbox
Fluid
SHELL MORLINA S4 B 220 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor. (Customer Sample Comment: Regular sample location)

WEAR

All component wear rates are normal.

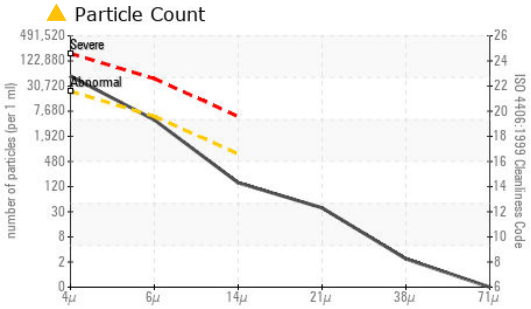
CONTAMINATION

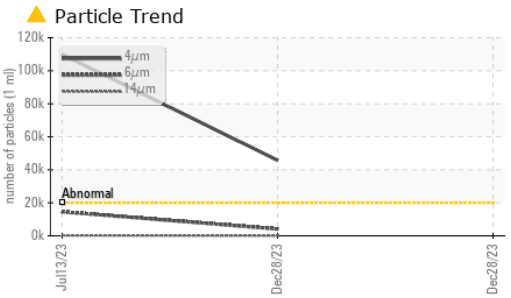
There is a high amount of silt (particulates < 6 microns in size) present in the oil.

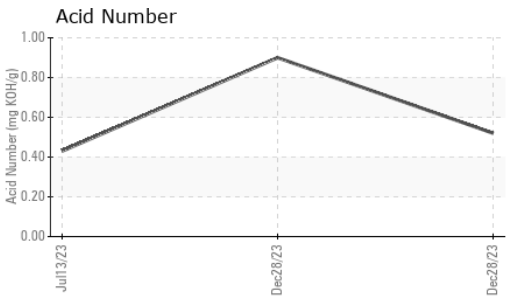
FLUID CONDITION

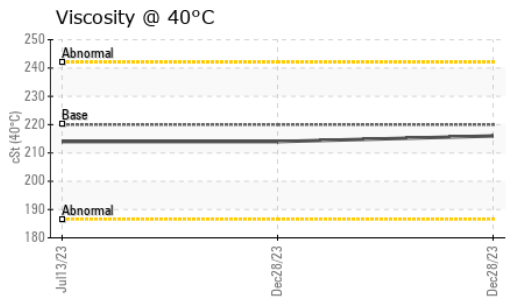
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

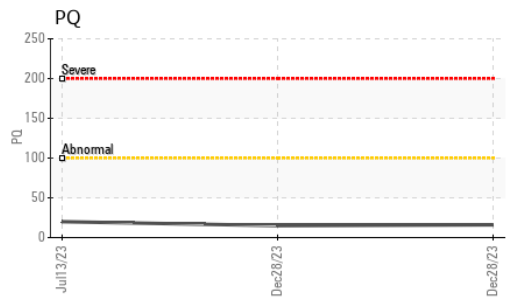
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PE0002923	PE0002922	PE0000933
Sample Date		Client Info		28 Dec 2023	28 Dec 2023	13 Jul 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	---	ABNORMAL
PQ		ASTM D8184		16	15	20
Iron	ppm	ASTM D5185m	>200	3	1	37
Chromium	ppm	ASTM D5185m	>15	<1	<1	0
Nickel	ppm	ASTM D5185m	>15	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	2	2	0
Lead	ppm	ASTM D5185m	>100	0	0	<1
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
Silicon	ppm	ASTM D5185m	>50	<1	<1	3
Potassium	ppm	ASTM D5185m	>20	<1	<1	2
Water		WC Method	>0.2	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	▲ 45756	---	▲ 109985
Particles >6µm		ASTM D7647	>5000	4143	---	▲ 14545
Particles >14µm		ASTM D7647	>640	131	---	252
Particles >21µm		ASTM D7647	>160	33	---	32
Particles >38µm		ASTM D7647	>40	2	---	1
Particles >71µm		ASTM D7647	>10	0	---	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 23/19/14	---	▲ 24/21/15
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT	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
Sodium	ppm	ASTM D5185m		0	0	<1
Boron	ppm	ASTM D5185m		0	6	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	<1	0
Manganese	ppm	ASTM D5185m		0	0	2
Magnesium	ppm	ASTM D5185m		0	0	<1
Calcium	ppm	ASTM D5185m		1	2	4
Phosphorus	ppm	ASTM D5185m		239	319	215
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m		2600	3291	8850
Acid Number (AN)	mg KOH/g	ASTM D8045		0.52	0.90	0.43
Visc @ 40°C	cSt	ASTM D445	220	216	214	214

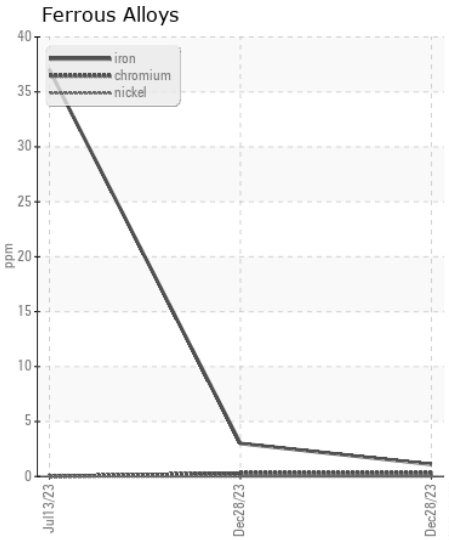


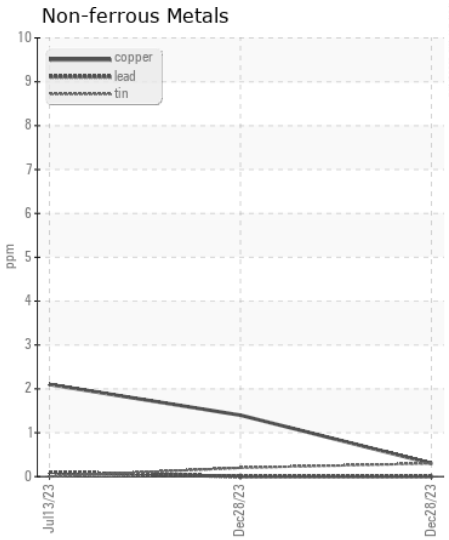


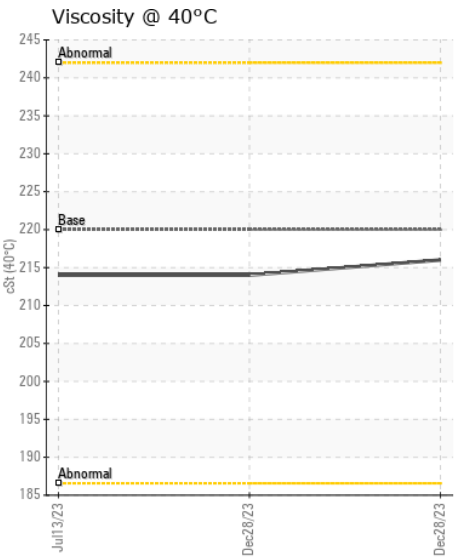


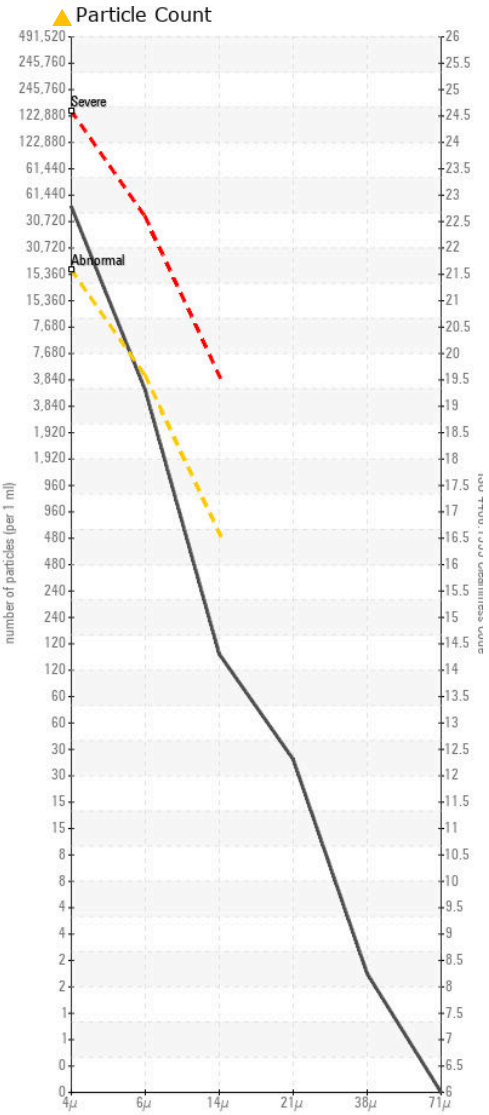


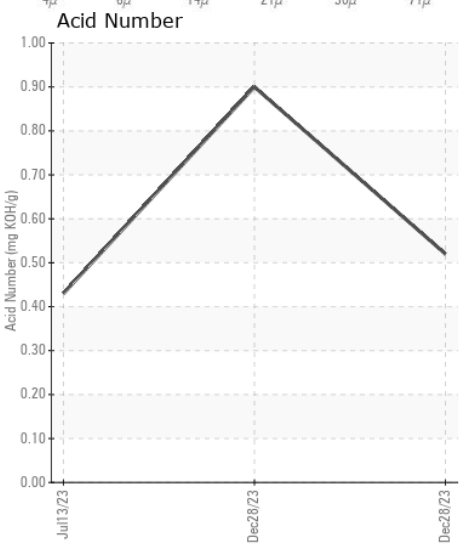












Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0002923 **Recieved** : 16 Jan 2024
Lab Number : 06061887 **Diagnosed** : 18 Jan 2024
Unique Number : 10833269 **Diagnostician** : Jonathan Hester
Test Package : PLANT (Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN)

Certificate L2367

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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