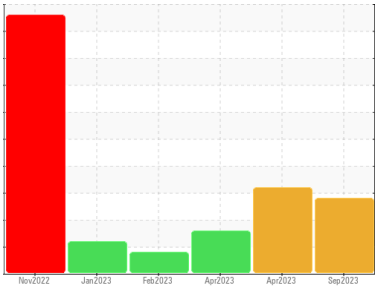
OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Area
STEAM AND POWER
Machine Id
420.0160 RECOVERY FD FAN
Component
Steam Turbine
Fluid
SHELL TURBO T ISO 68 (--- GAL)

DIAGNOSIS

▲ Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

▲ Contamination

Appearance is layered. There is a light concentration of water present in the oil. 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		**PE0001415**	PE0000915	PE0000875
Sample Date		Client Info		**20 Sep 2023**	21 Apr 2023	21 Apr 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	1	1
Oil Changed		Client Info		**N/A**	Filtered	Filtered
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		**13**	12	9
Iron	ppm	ASTM D5185m	>15	**<1**	0	1
Chromium	ppm	ASTM D5185m	>4	**0**	0	0
Nickel	ppm	ASTM D5185m	>2	**0**	0	0
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m		**0**	0	0
Aluminum	ppm	ASTM D5185m	>10	**2**	0	0
Lead	ppm	ASTM D5185m		**<1**	0	0
Copper	ppm	ASTM D5185m	>5	**<1**	0	<1
Tin	ppm	ASTM D5185m	>5	**0**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

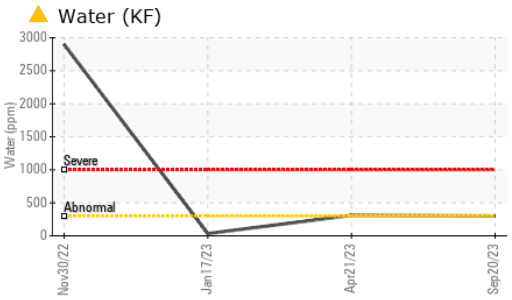
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**0**	<1	<1
Magnesium	ppm	ASTM D5185m		**0**	3	<1
Calcium	ppm	ASTM D5185m		**<1**	28	3
Phosphorus	ppm	ASTM D5185m		**9**	11	16
Zinc	ppm	ASTM D5185m		**18**	6	9
Sulfur	ppm	ASTM D5185m		**34**	0	129

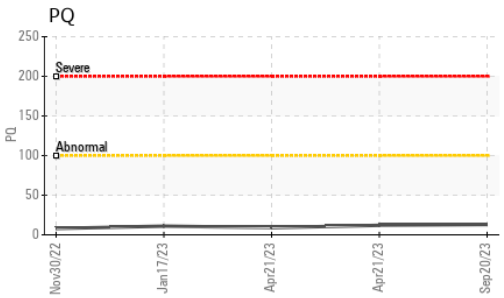
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**<1**	0	0
Sodium	ppm	ASTM D5185m		**0**	0	0
Potassium	ppm	ASTM D5185m	>20	**<1**	0	0
Water	%	ASTM D6304	>0.03	▲ **0.030**	▲ 0.031	---
ppm Water	ppm	ASTM D6304	>300	▲ **300**	▲ 310	---

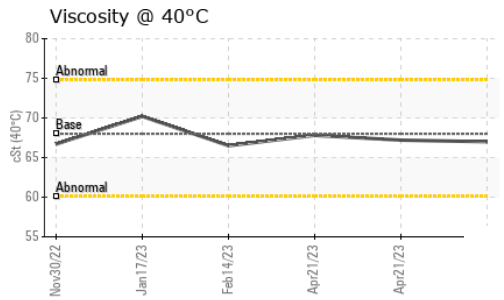
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>2500	**---**	931	▲ 6945
Particles >6µm		ASTM D7647	>640	**---**	507	▲ 2094
Particles >14µm		ASTM D7647	>160	**---**	86	▲ 175
Particles >21µm		ASTM D7647	>40	**---**	29	46
Particles >38µm		ASTM D7647	>10	**---**	4	1
Particles >71µm		ASTM D7647	>3	**---**	0	0
Oil Cleanliness		ISO 4406 (c)	>18/16/14	**---**	17/16/14	▲ 20/18/15

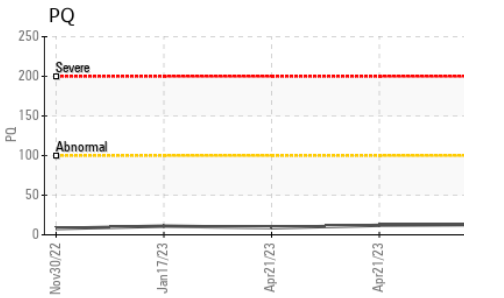
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	.05	**0.079**	0.174	0.113

OIL ANALYSIS REPORT



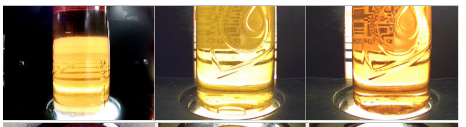
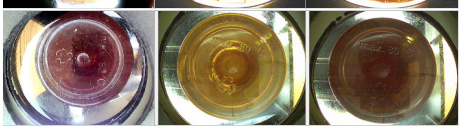




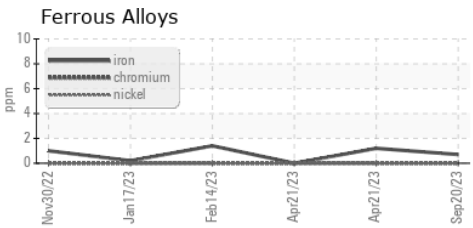


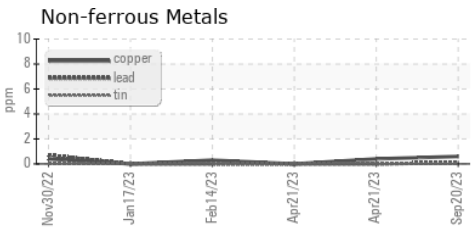
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	▲ **MODER**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	▲ **LAYRD**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.03	**0.2%**	▲ 0.2%	NEG
Free Water	scalar	*Visual		**NEG**	▲ 1.0	NEG

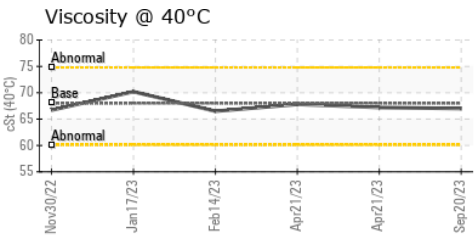
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	68	**67.0**	67.2	67.8

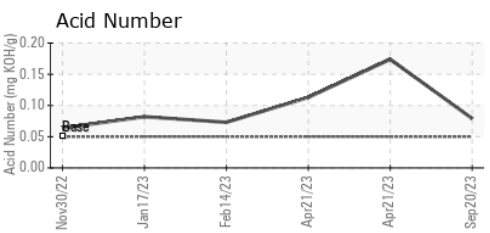
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS









Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0001415 **Recieved** : 04 Oct 2023
Lab Number : 05968800 **Diagnosed** : 06 Oct 2023
Unique Number : 10675351 **Diagnostician** : Don Baldridge
Test Package : PLANT (Additional Tests: ICP, KF, KV40, PQ, PrtCount, SCREEN)

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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