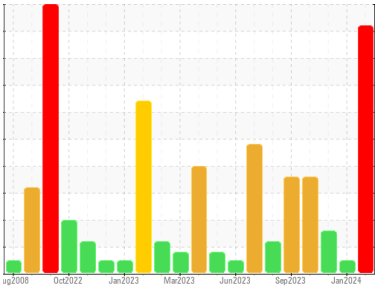
PROBLEM SUMMARY

Sample Rating Trend

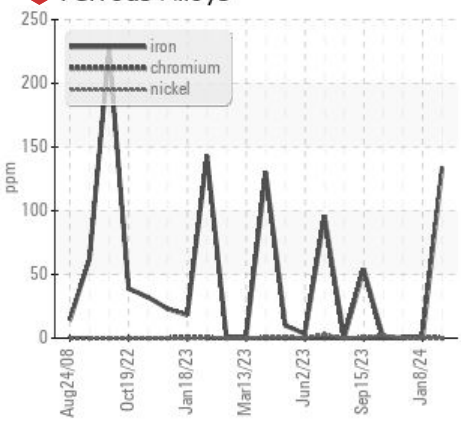


WEAR

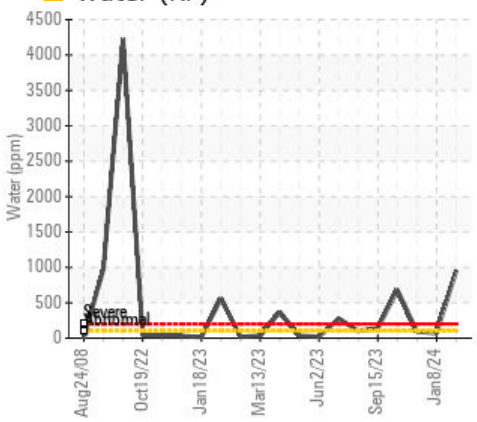
Machine Id
TYSWAT RECYCLED NH3
Component
Refrigeration Compressor
Fluid
USPI 1009-68 SC (--- GAL)

COMPONENT CONDITION SUMMARY

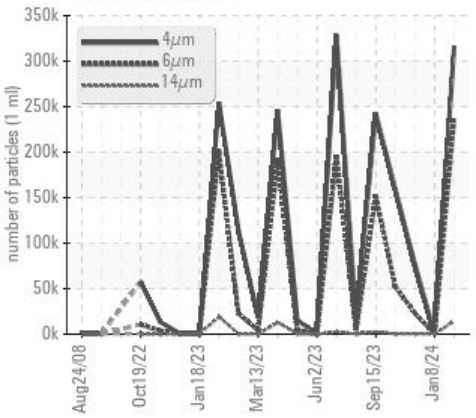
Ferrous Alloys



Water (KF)



Particle Trend



RECOMMENDATION

This is a baseline read-out on the submitted sample. We recommend you service the filters on this component. BATCH 6 BEFORE

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>8	**134**	<1	<1
Water	%	ASTM D6304	>0.01	**0.095**	0.007	0.009
ppm Water	ppm	ASTM D6304	>100	**957**	71	91
Particles >6µm		ASTM D7647	>2500	**236290**	193	22831
Particles >14µm		ASTM D7647	>320	**14112**	9	421
Particles >21µm		ASTM D7647	>80	**203**	3	30
Oil Cleanliness		ISO 4406 (c)	>--/18/15	**25/25/21**	17/15/10	23/22/16

Customer Id: IBPWAT01
Sample No.: USP0005063
Lab Number: 06062042
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

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

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.

HISTORICAL DIAGNOSIS

08 Jan 2024 Diag: Doug Bogart

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

27 Nov 2023 Diag: Doug Bogart

ISO

This is a baseline read-out on the submitted sample. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

10 Oct 2023 Diag: Doug Bogart

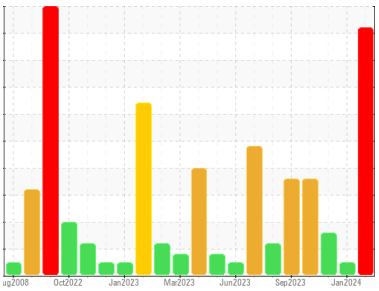
WATER

Resample at the next service interval to monitor.All component wear rates are normal. Appearance is hazy. There is a high amount of silt (particulates < 14 microns in size) present in the oil. There is a light concentration of water present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Machine Id
TYSWAT RECYCLED NH3
Component
Refrigeration Compressor
Fluid
USPI 1009-68 SC (--- GAL)

DIAGNOSIS

Recommendation
This is a baseline read-out on the submitted sample. We recommend you service the filters on this component. BATCH 6 BEFORE

Wear
The iron level is severe.

Contamination
There is a high amount of particulates present in the oil. There is a light concentration of water present in the oil.

Fluid Condition
The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**USP0005063**	USP0005209	USP0003982
Sample Date		Client Info		**11 Jan 2024**	08 Jan 2024	27 Nov 2023
Machine Age	hrs	Client Info		**0**	0	0
Oil Age	hrs	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**SEVERE**	NORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	**134**	<1	<1
Chromium	ppm	ASTM D5185m	>2	**0**	<1	0
Nickel	ppm	ASTM D5185m		**<1**	<1	0
Titanium	ppm	ASTM D5185m		**0**	<1	0
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>3	**1**	0	0
Lead	ppm	ASTM D5185m	>2	**0**	<1	0
Copper	ppm	ASTM D5185m	>8	**<1**	<1	<1
Tin	ppm	ASTM D5185m	>4	**0**	<1	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	<1	0

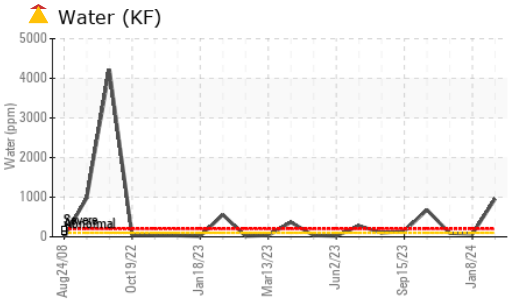
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	<1	0
Manganese	ppm	ASTM D5185m		**<1**	<1	0
Magnesium	ppm	ASTM D5185m		**0**	<1	1
Calcium	ppm	ASTM D5185m		**0**	0	1
Phosphorus	ppm	ASTM D5185m		**0**	0	1
Zinc	ppm	ASTM D5185m		**0**	0	0
Sulfur	ppm	ASTM D5185m	50	**0**	0	53

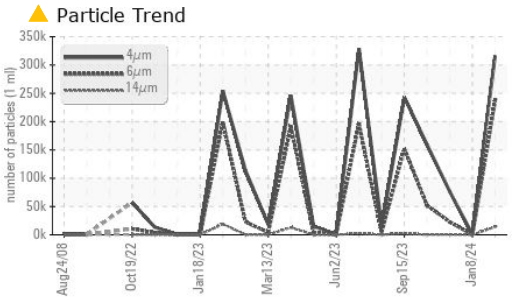
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**2**	2	1
Sodium	ppm	ASTM D5185m		**0**	0	<1
Potassium	ppm	ASTM D5185m	>20	**<1**	<1	<1
Water	%	ASTM D6304	>0.01	**0.095**	0.007	0.009
ppm Water	ppm	ASTM D6304	>100	**957**	71	91

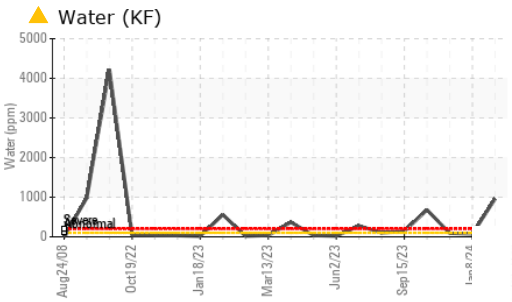
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**316149**	740	76678
Particles >6µm		ASTM D7647	>2500	**236290**	193	22831
Particles >14µm		ASTM D7647	>320	**14112**	9	421
Particles >21µm		ASTM D7647	>80	**203**	3	30
Particles >38µm		ASTM D7647	>20	**0**	0	0
Particles >71µm		ASTM D7647	>4	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>--/18/15	**25/25/21**	17/15/10	23/22/16

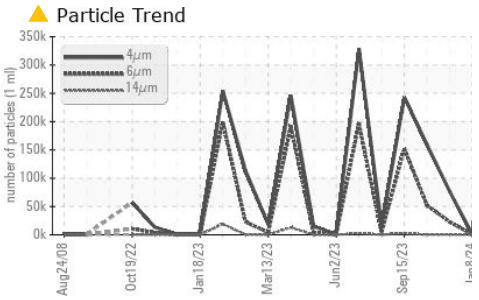
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974	0.005	**0.053**	0.013	0.013

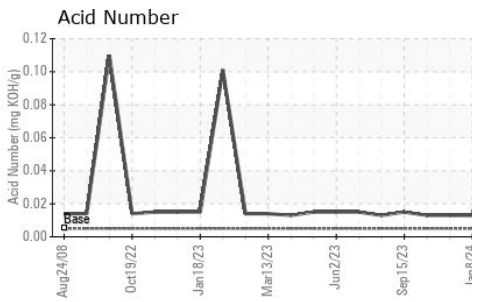
OIL ANALYSIS REPORT





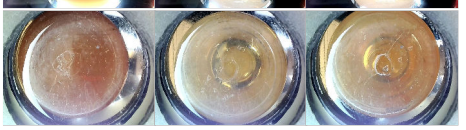




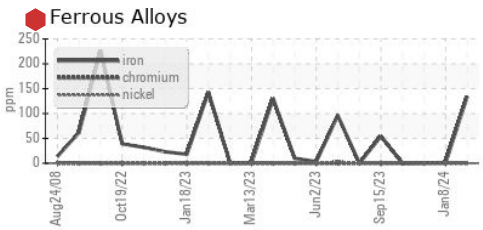


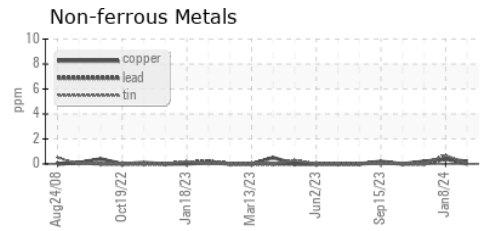
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

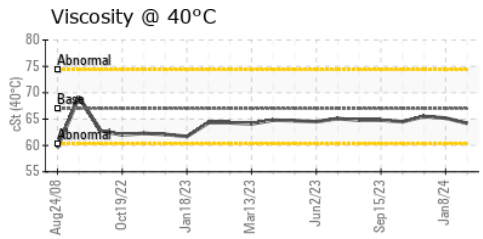
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	67	**64.2**	65.2	65.5

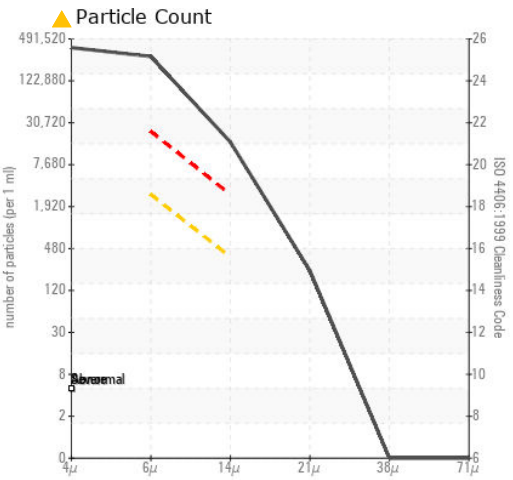
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

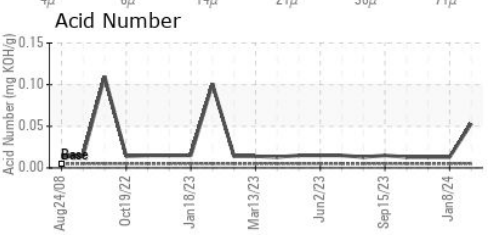
GRAPHS











Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : USP0005063
Lab Number : 06062042
Unique Number : 10833424
Test Package : IND 2

Recieved : 16 Jan 2024
Diagnosed : 19 Jan 2024
Diagnostician : Jonathan Hester

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)

TYSON - WATERLOO - USP CODE TYSWATPRO
501 N Elk Run Road
Waterloo, IA
US 50703
Contact: ED ALBERT

T: (319)236-9328
F: (319)236-9393