

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

FRICK TYSWAT 11 FR (S/N S0098HFMFTOAA3)

Refrigeration Compressor

USPI 1009-68 SC (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

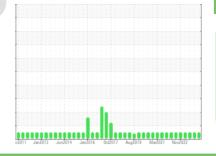
All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Fluid Condition

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

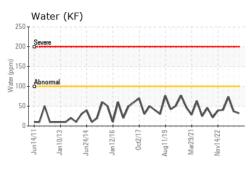


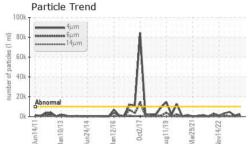


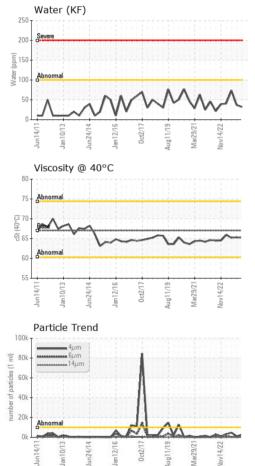
SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		USP0007607	USP0001251	USP244728
Sample Date		Client Info		26 Feb 2024	12 Oct 2023	04 Jul 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	2	3	4
Chromium	ppm	ASTM D5185m	>2	<1	0	0
Nickel	ppm	ASTM D5185m		0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>3	0	0	<1
Lead	ppm	ASTM D5185m	>2	0	0	0
Copper	ppm	ASTM D5185m	>8	0	0	0
Tin	ppm	ASTM D5185m	>4	0	0	<1
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		<1	0	0
Calcium	ppm	ASTM D5185m		0	1	0
Phosphorus	ppm	ASTM D5185m		0	<1	0
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m	50	0	11	10
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	0	<1	<1
Sodium	ppm	ASTM D5185m		0	<1	0
Potassium	ppm	ASTM D5185m	>20	1	0	1
Water	%	ASTM D6304	>0.01	0.003	0.003	0.007
ppm Water	ppm	ASTM D6304	>100	32	36.9	73.5
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	2599	971	4683
Particles >6µm		ASTM D7647	>2500	672	357	546
Particles >14µm		ASTM D7647	>320	17	20	12
Particles >21µm		ASTM D7647	>80	3	2	3
Particles >38µm		ASTM D7647	>20	0	0	0
Particles >71µm		ASTM D7647	>4	0	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	19/17/11	17/16/11	19/16/11
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974	0.005	0.014	0.013	0.014



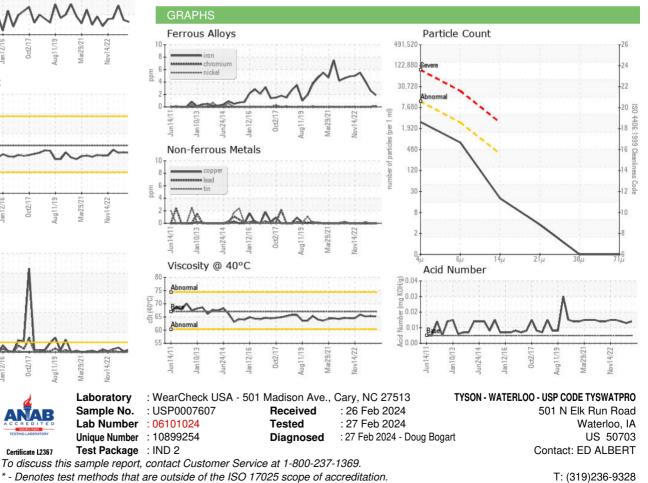
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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*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 PROPERT	IES	method				history2
FLUID PROPERT Visc @ 40°C	IES cSt	method ASTM D445	limit/base 67	current 65.2	history1 65.3	history2 65.2
	cSt					
Visc @ 40°C	cSt	ASTM D445	67	65.2	65.3	65.2



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Certificate L2367

Contact/Location: ED ALBERT - IBPWAT01