

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

VILTER TYSPER 04 (S/N V004) Component

Refrigeration Compressor

USPI 1009-68 SC (--- GAL)

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.

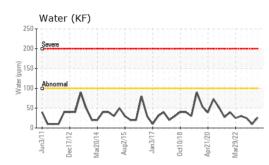


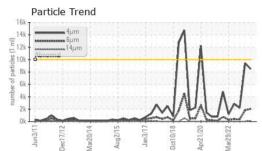


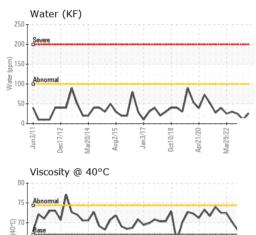
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2		
Sample Number		Client Info		USP0004795	USP0000883	USP245074		
Sample Date		Client Info		03 Jan 2024	31 Jul 2023	17 Jan 2023		
Machine Age	mths	Client Info		0	0	0		
Oil Age	mths	Client Info		0	0	0		
Oil Changed		Client Info		N/A	N/A	N/A		
Sample Status				NORMAL	NORMAL	NORMAL		
WEAR METALS		method	limit/base	current	history1	history2		
Iron	ppm	ASTM D5185m	>8	0	0	0		
Chromium	ppm	ASTM D5185m	>2	0	0	0		
Nickel	ppm	ASTM D5185m		0	<1	0		
Titanium	ppm	ASTM D5185m		0	0	0		
Silver	ppm	ASTM D5185m	>2	0	0	0		
Aluminum	ppm	ASTM D5185m	>3	<1	<1	0		
Lead	ppm	ASTM D5185m	>2	0	0	0		
Copper	ppm	ASTM D5185m	>8	<1	0	0		
Tin	ppm	ASTM D5185m	>4	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	<1	2		
Molybdenum	ppm	ASTM D5185m		0	0	0		
Manganese	ppm	ASTM D5185m		<1	0	0		
Magnesium	ppm	ASTM D5185m		<1	0	<1		
Calcium	ppm	ASTM D5185m		<1	0	<1		
Phosphorus	ppm	ASTM D5185m		0	0	1		
Zinc	ppm	ASTM D5185m		2	0	0		
Sulfur	ppm	ASTM D5185m	50	0	0	9		
CONTAMINANTS		method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185m	>15	3	3	6		
Sodium	ppm	ASTM D5185m		0	0	0		
Potassium	ppm	ASTM D5185m	>20	0	0	<1		
Water	%	ASTM D6304	>0.01	0.003	0.001	0.002		
ppm Water	ppm	ASTM D6304	>100	26	9.8	24.9		
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2		
Particles >4µm		ASTM D7647	>10000	8483	9416	2207		
Particles >6µm		ASTM D7647	>2500	2032	1843	358		
Particles >14µm		ASTM D7647	>320	101	42	11		
Particles >21µm		ASTM D7647	>80	17	6	1		
Particles >38µm		ASTM D7647	>20	0	0	0		
Particles >71µm		ASTM D7647	>4	0	0	0		
Oil Cleanliness		ISO 4406 (c)	>20/18/15	20/18/14	20/18/13	18/16/11		
FLUID DEGRADATION method limit/base current history1 history2								
Acid Number (AN)	mg KOH/g	ASTM D974	0.005	0.014	0.014	0.015		



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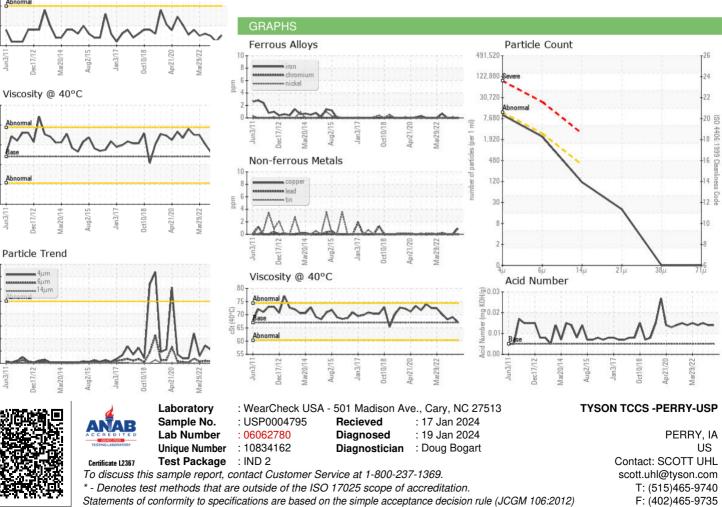
number of particles (1 ml) 10k 8k 9k 4k 4k

21

0

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	LIGHT	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	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	67	67.2	69.1	68.2
SAMPLE IMAGES	3	method	limit/base	current	history1	history2
Color				•		
D						

Bottom



Contact/Location: SCOTT UHL - TYSPER