

OIL ANALYSIS REPORT

FES HTC-2 (S/N 23441-001-1-01-02) Component

Refrigeration Compressor USPI ALT-68 SC (--- GAL)

Recommendation

Resample at the next service interval to monitor.

Wear

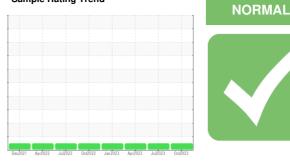
All component wear rates are normal.

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.



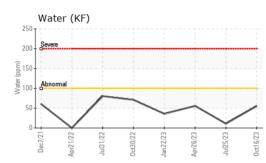
Sample Rating Trend

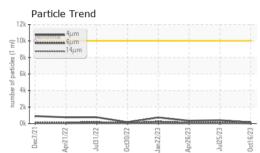


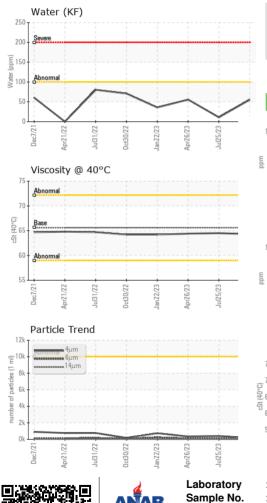
SAMPLE INFORM	NATION	method	limit/base	current	history1	history2
Sample Number		Client Info		USP0001102	USP249773	USP245567
Sample Date		Client Info		16 Oct 2023	25 Jul 2023	26 Apr 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
		ASTM D5185m	>8		<1	0
Iron Chromium	ppm			0		0
	ppm	ASTM D5185m	>2		0	
Nickel	ppm	ASTM D5185m		0	0	0
Titanium	ppm	ASTM D5185m	0	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>3	0	0	0
Lead	ppm	ASTM D5185m	>2	0	0	0
Copper	ppm	ASTM D5185m	>8	0	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		3	1	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		0	<1	<1
Calcium	ppm	ASTM D5185m		0	0	0
Phosphorus	ppm	ASTM D5185m		1	0	0
Zinc	ppm	ASTM D5185m		5	0	0
Sulfur	ppm	ASTM D5185m	50	11	27	0
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	1	1	1
Sodium	ppm	ASTM D5185m		0	0	0
Potassium	ppm	ASTM D5185m	>20	2	<1	<1
Water	%	ASTM D6304	>0.01	0.005	0.001	0.005
ppm Water	ppm	ASTM D6304	>100	55.3	10.9	55.7
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	151	406	350
Particles >6µm		ASTM D7647	>2500	40	109	95
Particles >14µm		ASTM D7647	>320	4	5	6
Particles >21µm		ASTM D7647	>80	1	2	2
Particles >38µm		ASTM D7647	>20	0	0	0
Particles >71µm		ASTM D7647	>4	0	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	14/12/9	16/14/10	16/14/10
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



OIL ANALYSIS REPORT

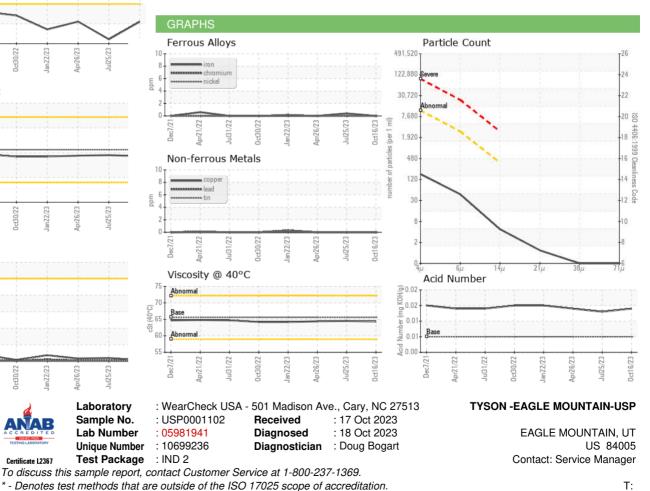






NONE NONE *Visual NONE NONE White Metal scalar Yellow Metal NONE NONE NONE NONE scalar *Visual Precipitate scalar *Visua NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE NONE Debris *Visual NONE NONE scalar NONE Sand/Dirt scalar *Visual NONE NONE NONE NORML Appearance NORML NORML NORML scalar *Visua Odor *Visual NORML NORML NORML NORML scalar *Visual **Emulsified Water** scalar >0.01 NEG NEG NEG Free Water scalar *Visual NEG NEG NEG FLUID PROPERTIES 64.5 Visc @ 40°C cSt ASTM D445 65.6 64.3 64.4 SAMPLE IMAGES Color

Bottom



* - 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)

Certificate L2367

Contact/Location: Service Manager - TYSEAG

F: