

OIL ANALYSIS REPORT

NORMAL

FES C 18 (S/N 5112011)

Component Refrigeration Compressor Fluid

USPI ALT-68 SC (205 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 component. The amount and size of particulates present in the system is 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		USP0012637	USP0007514	USP0004248
Sample Date		Client Info		02 Jun 2024	28 Feb 2024	07 Dec 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	<1	0	0
Chromium	ppm	ASTM D5185m	>2	<1	<1	<1
Nickel	ppm	ASTM D5185m		<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>3	1	0	<1
Lead	ppm	ASTM D5185m	>2	<1	0	0
Copper	ppm	ASTM D5185m	>8	<1	<1	0
Tin	ppm	ASTM D5185m	>4	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	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		<1	0	0
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m		0	<1	0
Calcium	ppm	ASTM D5185m		0	0	0
Phosphorus	ppm	ASTM D5185m		0	0	0
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m	50	0	0	0
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	1	<1	<1
Sodium	ppm	ASTM D5185m		3	0	<1
Potassium	ppm	ASTM D5185m	>20	2	<1	0
Water	%	ASTM D6304	>0.01	0.005	0.003	0.004
ppm Water	ppm	ASTM D6304	>100	58	34	47
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		6211	5761	6077
Particles >6µm		ASTM D7647	>2500	720	1423	1383
Particles >14µm		ASTM D7647	>320	18	37	54
Particles >21µm		ASTM D7647	>80	4	2	9
Particles >38µm		ASTM D7647	>20	0	0	0
Particles >71µm		ASTM D7647	>4	0	0	0
Oil Cleanliness		ISO 4406 (c)	>/18/15	20/17/11	20/18/12	20/18/13
FLUID DEGRADA	TION	method	limit/base	current	history1	history2

Acid Number (AN)

mg KOH/g ASTM D974 0.005

Contact/Location: SERVICE MANAGER - TYSFORMS

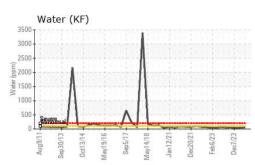
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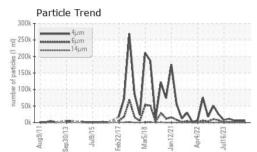
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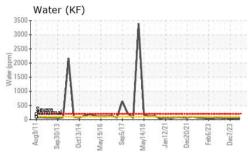
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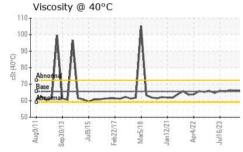


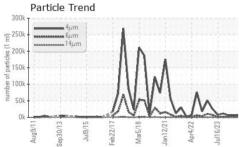
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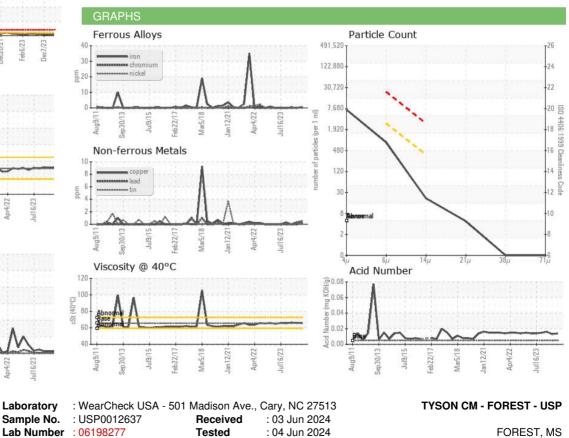








VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	65.6	65.9	66.0	66.3
SAMPLE IMAGES	5	method	limit/base	current	history1	history2
Color				•		
Bottom						()



: 06 Jun 2024 - Doug Bogart



Unique Number : 11060400 Test Package : IND 2 Certificate 12367

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)

Diagnosed

T: F:

US

Contact/Location: SERVICE MANAGER - TYSFORMS

Contact: SERVICE MANAGER