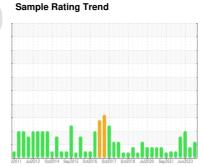


OIL ANALYSIS REPORT

Area ER-1 C-10 (S/N S0432TFMCTHAA03)

Refrigeration Compressor

USPI ALT-68 SC (--- GAL)





▲ Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

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

Sample Number Client Info USP0005027 USP0001651 USP Sample Date Client Info 02 Jan 2024 26 Sep 2023 28 July Machine Age hrs Client Info 9012 6721 4558 Oil Age hrs Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A Sample Status ATTENTION ATTENTION ABN WEAR METALS method limit/base current history1 Iron ppm ASTM D5185m >8 0 0 0 Chromium ppm ASTM D5185m >2 <1 0 0 Nickel ppm ASTM D5185m >2 <1 0 0 Titanium ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >2 0 0 0 Copper ppm ASTM D5185m >8 0 0	IORMAL history2 1
Sample Date Client Info 02 Jan 2024 26 Sep 2023 28 Jan 2024 Machine Age hrs Client Info 9012 6721 4558 Oil Age hrs Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status ATTENTION ATTENTION ABN WEAR METALS method limit/base current history1 Iron ppm ASTM D5185m >8 0 0 Chromium ppm ASTM D5185m >2 <1 0 0 Nickel ppm ASTM D5185m >2 <1 0 0 Titanium ppm ASTM D5185m >2 0 0 0 Silver ppm ASTM D5185m >3 0 0 0 Lead ppm ASTM D5185m >2 0 0 0 Copper ppm ASTM D5185m >4	IORMAL history2
Machine Age hrs Client Info 9012 6721 4558 Oil Age hrs Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A Sample Status ATTENTION ATTENTION ABN WEAR METALS method limit/base current history1 Iron ppm ASTM D5185m >8 0 0 0 Chromium ppm ASTM D5185m >2 <1 0 0 Nickel ppm ASTM D5185m >2 <1 0 0 Titanium ppm ASTM D5185m >2 0 0 0 Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >2 0 0 0 Lead ppm ASTM D5185m >8 0 0 0 Copper ppm ASTM D5185m >4	NORMAL history2 1
Oil Age hrs Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A Sample Status ATTENTION ATTENTION ABN WEAR METALS method limit/base current history1 Iron ppm ASTM D5185m >8 0 0 Chromium ppm ASTM D5185m >2 <1 0 0 Nickel ppm ASTM D5185m 0 0 0 Titanium ppm ASTM D5185m >2 0 0 0 Silver ppm ASTM D5185m >2 0 0 0 0 Aluminum ppm ASTM D5185m >2 0 0 0 0 Lead ppm ASTM D5185m >8 0 0 0 0 Copper ppm ASTM D5185m >4 0 0 0 0 Vanadium	NORMAL history2 1
Oil Changed Client Info N/A N/A N/A N/A Sample Status attention Attention Attention Abn WEAR METALS method limit/base current history1 Iron ppm ASTM D5185m >8 0 0 Chromium ppm ASTM D5185m >2 <1 0 0 Nickel ppm ASTM D5185m 0 0 0 0 Titanium ppm ASTM D5185m >2 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 0 0 0 0 Vanadium ppm <th>history2 1</th>	history2 1
Sample Status ATTENTION ATTENTION ABN WEAR METALS method limit/base current history1 Iron ppm ASTM D5185m >8 0 0 Chromium ppm ASTM D5185m >2 <1 0 0 0 Nickel ppm ASTM D5185m 0	history2 1
WEAR METALS method limit/base current history1 Iron ppm ASTM D5185m >8 0 0 Chromium ppm ASTM D5185m >2 <1 0 0 Nickel ppm ASTM D5185m 0 0 0 0 Titanium ppm ASTM D5185m >2 0 0 0 0 Silver ppm ASTM D5185m >2 0 0 0 0 Aluminum ppm ASTM D5185m >3 0 0 0 0 Lead ppm ASTM D5185m >2 0 0 0 0 Copper ppm ASTM D5185m >8 0 0 0 Tin ppm ASTM D5185m 0 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current	history2 1
Iron ppm ASTM D5185m >8 0 0 Chromium ppm ASTM D5185m >2 <1	1
Chromium ppm ASTM D5185m >2 <1	1
Nickel ppm ASTM D5185m 0 0 Titanium ppm ASTM D5185m 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	1
Titanium ppm ASTM D5185m 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	
Silver ppm ASTM D5185m >2 0 0 0 Aluminum ppm ASTM D5185m >3 0 0 0 0 Lead ppm ASTM D5185m >2 0 0 0 0 Copper ppm ASTM D5185m >8 0 0 0 0 Tin ppm ASTM D5185m >4 0 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1	
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	
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	
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	
Tin ppm ASTM D5185m >4 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1	
Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1	
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1	
ADDITIVES method limit/base current history1	
	hietory2
Boron ppm ASTM D5185m 0 0 0	riistoryz
Barium ppm ASTM D5185m 0 0	
Molybdenum ppm ASTM D5185m 0 0 0	
Manganese ppm ASTM D5185m 0 0	
Magnesium ppm ASTM D5185m 0 0 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 1 0 0	
Potassium ppm ASTM D5185m >20 0 0 <	1
	.001
	.8
FLUID CLEANLINESS method limit/base current history1	history2
Particles >4μm ASTM D7647 >10000 ▲ 15848 9212 ▲ 35	5754
	0670
Particles >14μm ASTM D7647 >320 256 180 Δ 53	37
Particles >21μm ASTM D7647 >80 58 47 Δ 10	02
Particles >38μm ASTM D7647 >20 2 3 2	
Particles >71µm	
	2/21/16
FLUID DEGRADATION method limit/base current history1	history2
Acid Number (AN) mg KOH/g ASTM D974 0.005 0.014 0.012 0.	.012



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number **Unique Number**

Test Package

: USP0005027 : 06061158

: 10832540 : IND 2

Recieved : 16 Jan 2024 Diagnosed : 17 Jan 2024 Diagnostician : Doug Bogart

Contact: SERVICE MANAGER

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)

T: F:

RUSSELLVILLE, AR