

OIL ANALYSIS REPORT

Area ER-1 C-3 (S/N 0117)

Refrigeration Compressor

FRICK COMPRESSOR OIL #3 (130 GAL)

Sample Rating Trend



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is a high 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.

รี่2012 Agr2014 Jul2015 Oct2016 Jun2018 Agr2019 Jul2020 Seg2022						
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		USP0005023	USP0001650	USP255238
Sample Date		Client Info		02 Jan 2024	26 Sep 2023	28 Jun 2023
Machine Age	hrs	Client Info		98251	95465	93778
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	18	19	14
Chromium	ppm	ASTM D5185m	>2	<1	0	0
Nickel	ppm	ASTM D5185m		<1	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	<1	<1	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	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	<1
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		0	1	22
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	0	<1	<1
Sodium	ppm	ASTM D5185m		0	0	0
Potassium	ppm	ASTM D5185m	>20	0	0	2
Water	%	ASTM D6304	>0.01	0.001	0.003	0.004
ppm Water	ppm	ASTM D6304	>100	15	25.1	41.4
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	24983	△ 59030	△ 94034
Particles >6µm		ASTM D7647	>2500	△ 6612	<u>▲</u> 15230	△ 37057
Particles >14µm		ASTM D7647	>320	285	499	<u>2271</u>
Particles >21µm		ASTM D7647	>80	55	▲ 82	△ 312
Particles >38µm		ASTM D7647	>20	1	2	0
Particles >71μm		ASTM D7647	>4	0	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	<u>22/20/15</u>	<u>\$\rightarrow\$ 23/21/16</u>	<u>4</u> 24/22/18
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974		0.014	0.012	0.015



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

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