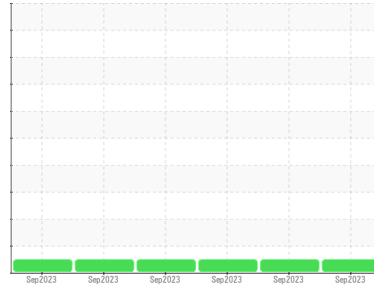


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
GE HSK 4

Component
Gas Turbine

Fluid
AMSOIL SYN TURBO ISO VG 32 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.
NOTE: one of two samples received with same ID and sampling date. Rest of data included.

Wear

{not applicable}

Contamination

The system cleanliness is acceptable for your target SAE AS4059 (replaces NAS 1638) cleanliness code. 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 INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		PCA0099970	PCA0099979	PCA0099971
Sample Date	Client Info		17 Sep 2023	16 Sep 2023	11 Sep 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 >15	<1	<1	0
Chromium	ppm	ASTM D5185m >4	<1	<1	0
Nickel	ppm	ASTM D5185m >2	0	0	0
Titanium	ppm	ASTM D5185m	<1	<1	<1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >10	0	0	0
Lead	ppm	ASTM D5185m	<1	<1	0
Copper	ppm	ASTM D5185m >5	<1	<1	0
Tin	ppm	ASTM D5185m >5	1	1	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	<1	<1	0

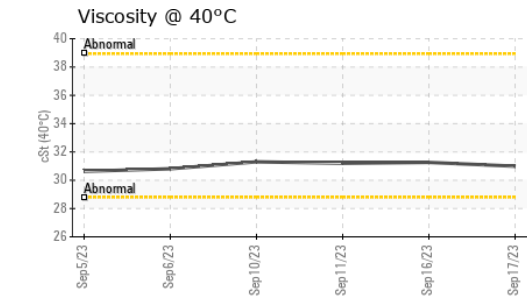
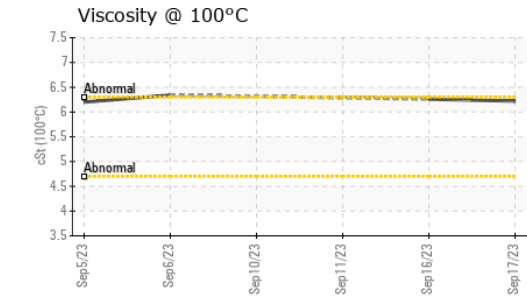
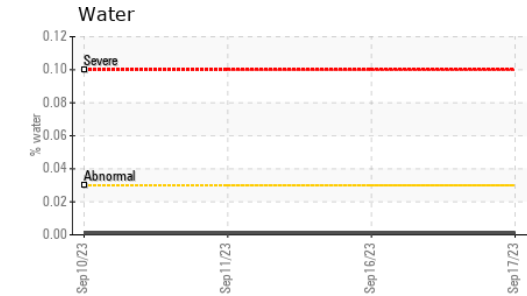
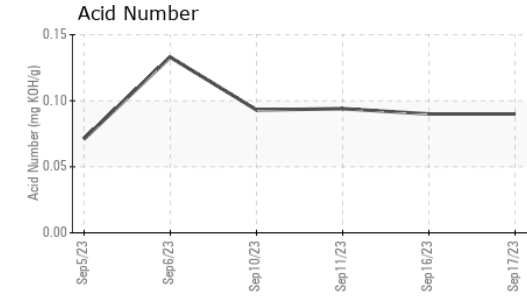
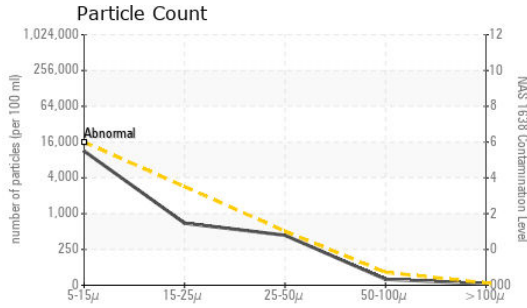
ADDITIVES

	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	<1	0
Manganese	ppm	ASTM D5185m	<1	<1	0
Magnesium	ppm	ASTM D5185m	0	0	0
Calcium	ppm	ASTM D5185m	<1	2	0
Phosphorus	ppm	ASTM D5185m	23	23	23
Zinc	ppm	ASTM D5185m	0	0	0
Sulfur	ppm	ASTM D5185m	669	680	773

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<1	<1	<1
Sodium	ppm	ASTM D5185m	<1	<1	<1
Potassium	ppm	ASTM D5185m >20	2	3	0
Water	%	ASTM D6304 >0.03	0.001	0.001	0.001
ppm Water	ppm	ASTM D6304 >300	3.3	8.7	4.3

OIL ANALYSIS REPORT



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0099970 **Received** : 18 Sep 2023
Lab Number : **05954508** **Diagnosed** : 19 Sep 2023
Unique Number : 10655721 **Diagnostician** : Doug Bogart
Test Package : MOB 2 (Additional Tests: KF, KV100, PrtCountNAS, VI)

MDU-HESKETT STATION
 2035 38TH ST
 MANDAN, ND
 US 58554
 Contact: DJ STOCKWELL
 dj.stockwell@mdu.com
 T: (406)931-3562
 F:

Certificate L2367
 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)

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		---	---	1019
Particles >6µm		ASTM D7647	>16000	---	---	357
Particles >14µm		ASTM D7647	>2850	---	---	36
Particles >21µm		ASTM D7647	>506	---	---	9
Particles >38µm		ASTM D7647	>90	---	---	0
Particles >71µm		ASTM D7647	>16	---	---	0
Oil Cleanliness		ISO 4406 (c)	>6	---	---	17/16/12
Particles 5-15µm	count	*NAS 1638	>16000	11307	12029	---
Particles 15-25µm	count	*NAS 1638	>2850	693	1218	---
Particles 25-50µm	count	*NAS 1638	>506	433	496	---
Particles 50-100µm	count	*NAS 1638	>90	42	0	---
Particles >100µm	count	*NAS 1638	>16	10	0	---
NAS 1638	Class	*NAS 1638	>6	6	6	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.09	0.09	0.094

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	>0.03	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		30.99	31.26	31.2
Visc @ 100°C	cSt	ASTM D445		6.22	6.26	---
Viscosity Index (VI)	Scale	ASTM D2270		155	155	---

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						

