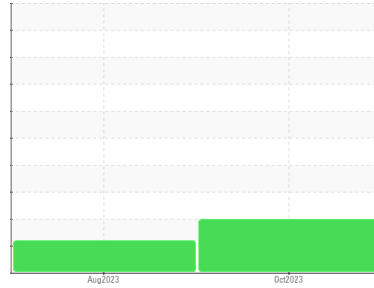


PROBLEM SUMMARY

Sample Rating Trend



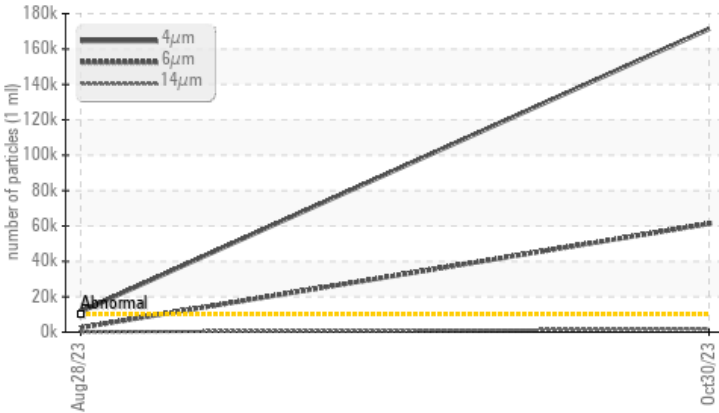
ISO



Machine Id
ACFM INLET BLOWER
Component
Screw Compressor
Fluid
ACFM ISO-VG-150 (55 GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ATTENTION	---
Particles >4µm	ASTM D7647	>10000	▲ 171361	▲ 11539	---
Particles >6µm	ASTM D7647	>2500	▲ 61277	▲ 2542	---
Particles >14µm	ASTM D7647	>320	▲ 1715	119	---
Particles >21µm	ASTM D7647	>80	▲ 250	26	---
Oil Cleanliness	ISO 4406 (c)	>20/18/15	▲ 25/23/18	▲ 21/19/14	---

Customer Id: TWIAND
Sample No.: TO60000911
Lab Number: 05996275
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldrige +1
don.b505@comcast.net

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component if applicable.

HISTORICAL DIAGNOSIS

28 Aug 2023 Diag: Don Baldrige

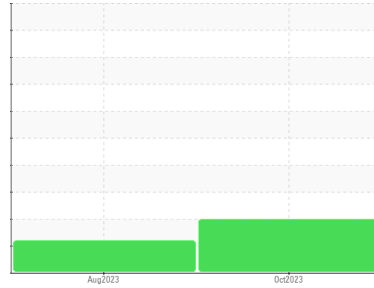
ISO



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report





Machine Id
ACFM INLET BLOWER
 Component
Screw Compressor
 Fluid
ACFM ISO-VG-150 (55 GAL)

DIAGNOSIS

Recommendation
 We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Wear
 All component wear rates are normal.

Contamination
 There is a high amount of particulates 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 INFORMATION	method	limit/base	current	history1	history2
Sample Number	Client Info		TO60000911	TO60000908	---
Sample Date	Client Info		30 Oct 2023	28 Aug 2023	---
Machine Age	hrs	Client Info	7539	0	---
Oil Age	hrs	Client Info	0	0	---
Oil Changed	Client Info		N/A	N/A	---
Sample Status			ABNORMAL	ATTENTION	---

WEAR METALS	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >60	<1	0	---
Chromium	ppm	ASTM D5185m >4	0	0	---
Nickel	ppm	ASTM D5185m	0	0	---
Titanium	ppm	ASTM D5185m	0	0	---
Silver	ppm	ASTM D5185m	0	0	---
Aluminum	ppm	ASTM D5185m >5	0	0	---
Lead	ppm	ASTM D5185m >10	0	0	---
Copper	ppm	ASTM D5185m >30	0	0	---
Tin	ppm	ASTM D5185m >15	0	0	---
Vanadium	ppm	ASTM D5185m	<1	<1	---
Cadmium	ppm	ASTM D5185m	0	0	---

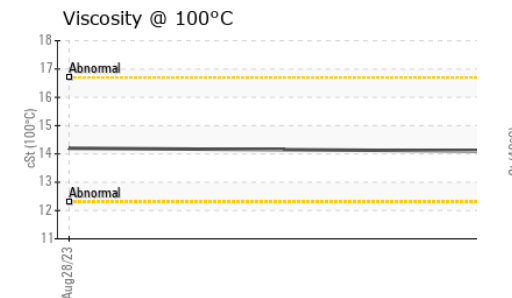
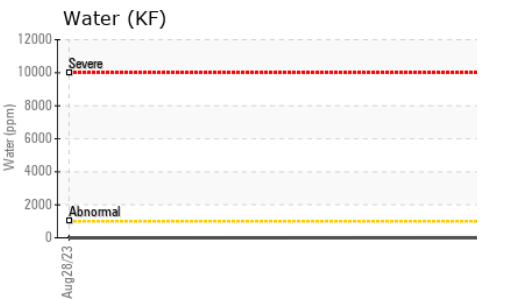
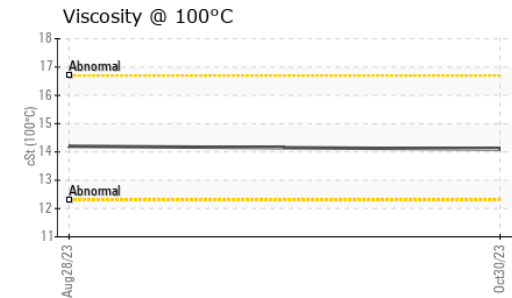
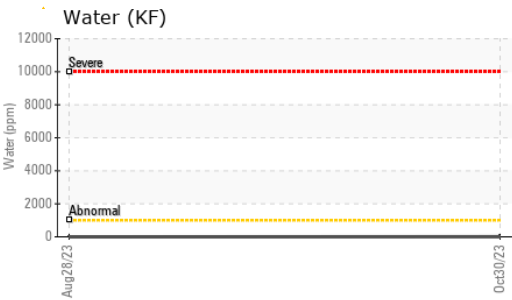
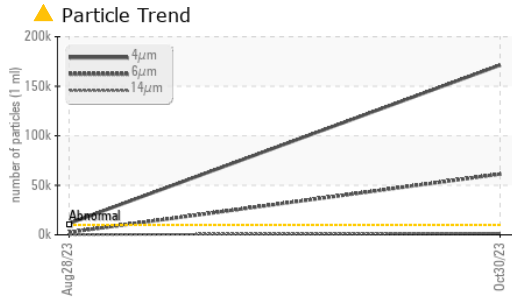
ADDITIVES	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	---
Barium	ppm	ASTM D5185m	0	0	---
Molybdenum	ppm	ASTM D5185m	0	0	---
Manganese	ppm	ASTM D5185m	0	0	---
Magnesium	ppm	ASTM D5185m	<1	<1	---
Calcium	ppm	ASTM D5185m	0	0	---
Phosphorus	ppm	ASTM D5185m	66	65	---
Zinc	ppm	ASTM D5185m	0	0	---
Sulfur	ppm	ASTM D5185m	45	54	---

CONTAMINANTS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	4	7	---
Sodium	ppm	ASTM D5185m	<1	2	---
Potassium	ppm	ASTM D5185m >20	3	3	---
Water	%	ASTM D6304 >0.1	0.001	0.00	---
ppm Water	ppm	ASTM D6304 >1000	7.6	0.00	---

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	▲ 171361	▲ 11539	---
Particles >6µm	ASTM D7647	>2500	▲ 61277	▲ 2542	---
Particles >14µm	ASTM D7647	>320	▲ 1715	119	---
Particles >21µm	ASTM D7647	>80	▲ 250	26	---
Particles >38µm	ASTM D7647	>20	7	1	---
Particles >71µm	ASTM D7647	>4	0	0	---
Oil Cleanliness	ISO 4406 (c)	>20/18/15	▲ 25/23/18	▲ 21/19/14	---

FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.08	0.12	---

OIL ANALYSIS REPORT

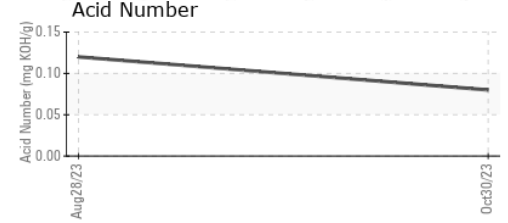
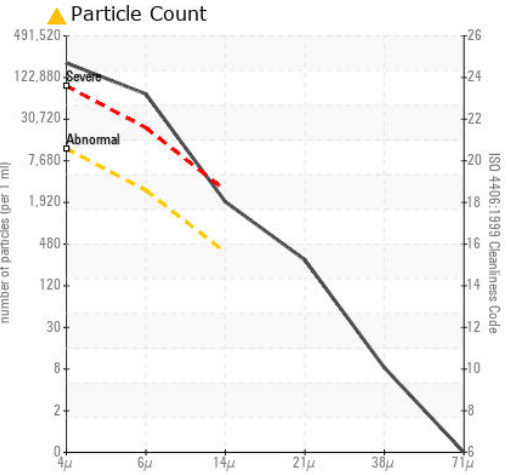
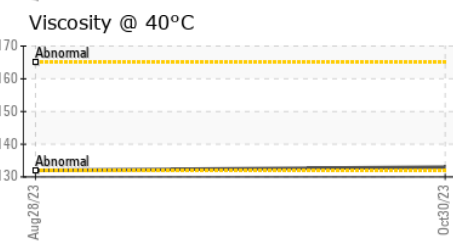


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	133	132	---
Visc @ 100°C	cSt	ASTM D445	14.1	14.2	---
Viscosity Index (VI)	Scale	ASTM D2270	103	105	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					no image
Bottom					no image

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO60000911 **Received** : 01 Nov 2023
Lab Number : 05996275 **Diagnosed** : 03 Nov 2023
Unique Number : 10724635 **Diagnostician** : Don Baldrige
Test Package : IND 2 (Additional Tests: KF, KV100, PrtCount, VI)

TWIN OAKS RENEWABLES
 2690 SH-30
 ANDERSON, TX
 US 77830
 Contact: DERRICK RHODES
 drhodes@morrowenergy.com

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)