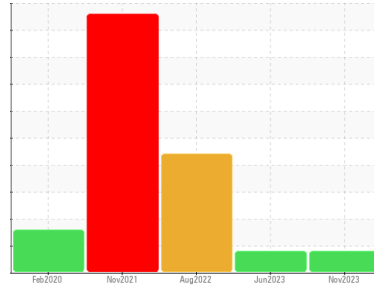


PROBLEM SUMMARY

Sample Rating Trend



SEDIMENT



Machine Id
ALPHA BLUE HEATER (S/N 97093)
 Component
Heat Transfer Fluid
 Fluid
TULCO LUBSOIL HEAT TRANSFER 250 (--- GAL)

COMPONENT CONDITION SUMMARY

No relevant graphs to display

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Silt	scalar	*Visual	NONE	▲ HEAVY	▲ MODER	NONE

Customer Id: BLUMUSOK
Sample No.: TO10002700
Lab Number: 06006322
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

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.
Alert	---	---	?	We were unable to perform a particle count due to a high concentration of particles present in this sample.

HISTORICAL DIAGNOSIS

07 Jun 2023 Diag: Jonathan Hester

SEDIMENT



We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. There is a moderate amount of visible silt present in the sample. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



10 Aug 2022 Diag: Doug Bogart

WATER



Recommend drain oil if not already done and flush with cleaner before refilling with oil. Please note that the oil was too thick to perform accurate viscosity tests. The iron level is abnormal. There is a moderate concentration of water present in the oil. The AN level is above the recommended limit. The oil is oxidized and beyond the limit of serviceability.

[view report](#)



23 Nov 2021 Diag: Doug Bogart

WEAR

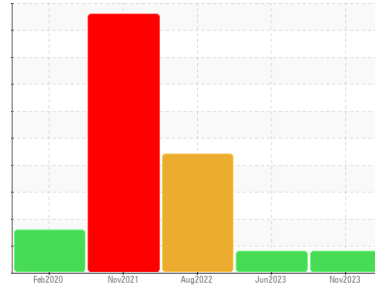


Recommend drain oil if not already done and flush with cleaner before refilling with oil. Please note that the oil was too thick to perform some of the normal laboratory tests. The iron level is abnormal. No contaminants were detected in the oil. The AN level is above the recommended limit. The oil is highly oxidized and beyond the limit of serviceability.

[view report](#)



Machine Id
ALPHA BLUE HEATER (S/N 97093)
 Component
Heat Transfer Fluid
 Fluid
TULCO LUBSOIL HEAT TRANSFER 250 (--- GAL)



DIAGNOSIS

- Recommendation**
We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.
- Wear**
All component wear rates are normal.
- Contamination**
There is a high amount of visible silt present in the sample.
- Fluid Condition**
The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		TO10002700	TO10001845	TO10001173
Sample Date	Client Info		08 Nov 2023	07 Jun 2023	10 Aug 2022
Machine Age	mths	Client Info	0	14	0
Oil Age	mths	Client Info	6	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 >200	121	155	▲ 598
Chromium	ppm	ASTM D5185m >21	0	0	0
Nickel	ppm	ASTM D5185m >21	0	0	0
Titanium	ppm	ASTM D5185m >21	0	0	0
Silver	ppm	ASTM D5185m >21	0	0	0
Aluminum	ppm	ASTM D5185m >21	0	0	1
Lead	ppm	ASTM D5185m >21	<1	0	0
Copper	ppm	ASTM D5185m >21	0	0	<1
Tin	ppm	ASTM D5185m >21	<1	<1	0
Antimony	ppm	ASTM D5185m >21	---	---	---
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	<1
Barium	ppm	ASTM D5185m	0	0	2
Molybdenum	ppm	ASTM D5185m	0	0	<1
Manganese	ppm	ASTM D5185m	1	2	6
Magnesium	ppm	ASTM D5185m	<1	0	1
Calcium	ppm	ASTM D5185m	11	13	9
Phosphorus	ppm	ASTM D5185m	2	10	23
Zinc	ppm	ASTM D5185m	0	0	5
Sulfur	ppm	ASTM D5185m 1400	938	1305	1011
Lithium	ppm	ASTM D5185m	---	---	---

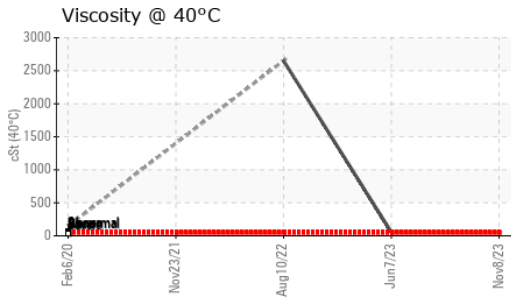
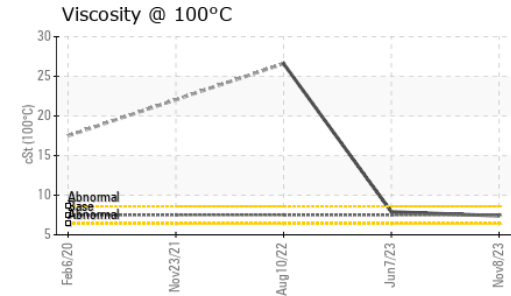
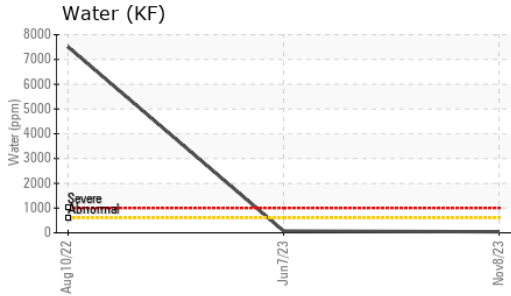
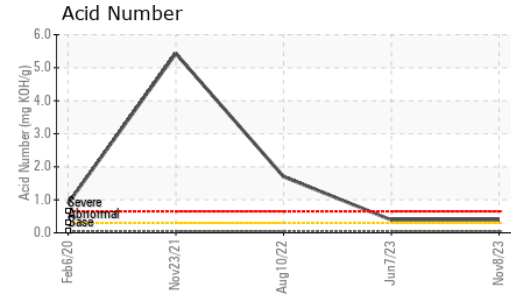
CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<1	27	2
Sodium	ppm	ASTM D5185m >21	<1	2	3
Potassium	ppm	ASTM D5185m >20	0	<1	1
Water	%	ASTM D6304 >0.0601	0.004	0.007	▲ 0.751
ppm Water	ppm	ASTM D6304 >601	41.1	71.5	▲ 7510

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.05	0.39	0.39	▲ 1.70

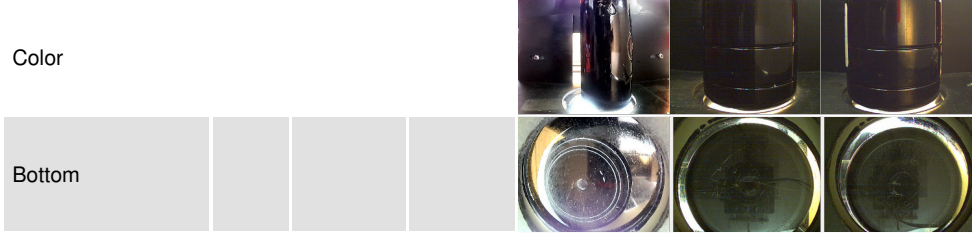
OIL ANALYSIS REPORT



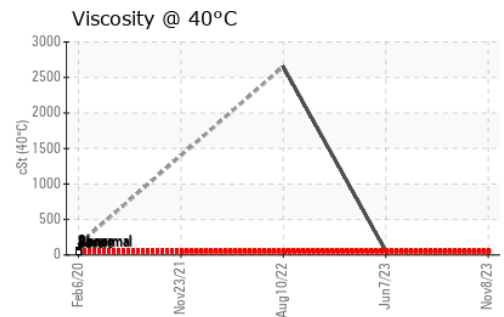
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	▲ HEAVY	▲ MODER
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.0601	NEG	▲ 0.2%
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	52	50.8	54.6 ▲ 2652
Visc @ 100°C	cSt	ASTM D445	7.5	7.4	7.9 ▲ 26.6
Viscosity Index (VI)	Scale	ASTM D2270	106	106	111 ---

SAMPLE IMAGES



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO10002700 **Received** : 13 Nov 2023
Lab Number : 06006322 **Diagnosed** : 30 Nov 2023
Unique Number : 10740084 **Diagnostician** : Doug Bogart
Test Package : IND 2 (Additional Tests: KF, KV100, PrtCount, VI)

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)

ERGON - CALLERY - ALPHA - BETA - DELTA
 2501 PORT PL
 MUSKOGEE, OK
 US 74403
 Contact: COLE HOWELL
 Donovan.Howell@ergon.com
 T:
 F: (918)683-6061