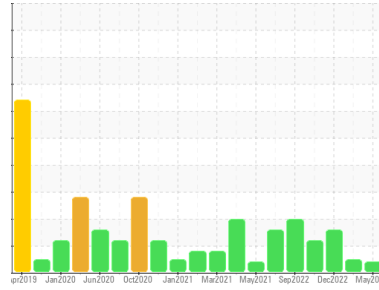


PROBLEM SUMMARY

Sample Rating Trend



VIS DEBRIS



Machine Id
BOSS XTO-PLU 158 (S/N 118257)
 Component
Compressor
 Fluid
TULCO LUBSOIL LPG WS 150 (8 GAL)

COMPONENT CONDITION SUMMARY

No relevant graphs to display

RECOMMENDATION

We recommend you service the filters on this component. 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	NORMAL	ABNORMAL
Debris	scalar *Visual	▲ MODER	NONE	▲ MODER

Customer Id: RICHOB
Sample No.: TO90003372
Lab Number: 05867329
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	MISSED	Nov 30 2023	?	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

16 Mar 2023 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



20 Dec 2022 Diag: Don Baldrige

ISO



No corrective action is recommended at this time. The filter change at the time of sampling has been noted. 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. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



07 Nov 2022 Diag: Angela Borella

ISO

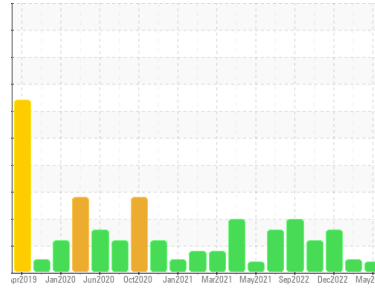


The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



Machine Id
BOSS XTO-PLU 158 (S/N 118257)
 Component
Compressor
 Fluid
TULCO LUBSOIL LPG WS 150 (8 GAL)



DIAGNOSIS

- Recommendation**
 We recommend you service the filters on this component. 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**
 Moderate concentration of visible dirt/debris 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	TO90003372	TO90002834	TO90002729
Sample Date	Client Info	22 May 2023	16 Mar 2023	20 Dec 2022
Machine Age	hrs	27729	26427	0
Oil Age	hrs	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	NORMAL	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	7	10	10
Chromium	ppm	ASTM D5185m >10	0	0	<1
Nickel	ppm	ASTM D5185m	<1	0	4
Titanium	ppm	ASTM D5185m	0	0	0
Silver	ppm	ASTM D5185m	<1	0	1
Aluminum	ppm	ASTM D5185m >25	0	0	<1
Lead	ppm	ASTM D5185m >25	<1	0	0
Copper	ppm	ASTM D5185m >50	<1	<1	<1
Tin	ppm	ASTM D5185m >15	1	<1	<1
Vanadium	ppm	ASTM D5185m	0	0	<1
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m 0	0	0	0
Barium	ppm	ASTM D5185m 0	0	0	1
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m 0	2	<1	<1
Calcium	ppm	ASTM D5185m 0	<1	2	2
Phosphorus	ppm	ASTM D5185m 0	254	290	334
Zinc	ppm	ASTM D5185m 0	0	<1	4
Sulfur	ppm	ASTM D5185m 0	141	71	94

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	<1	0	<1
Sodium	ppm	ASTM D5185m	2	2	8
Potassium	ppm	ASTM D5185m >20	3	2	<1
Water	%	ASTM D6304 >2.26	0.915	0.701	0.644
ppm Water	ppm	ASTM D6304 >22600	9150	7010	6440

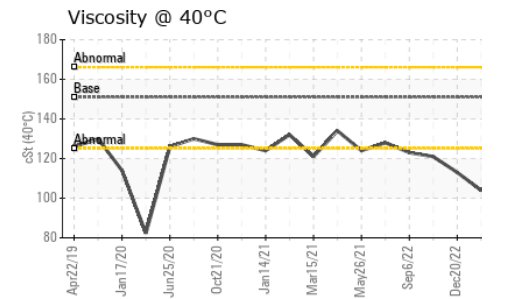
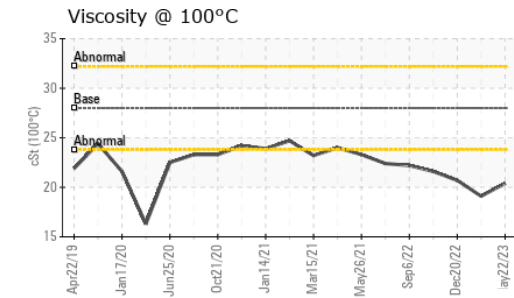
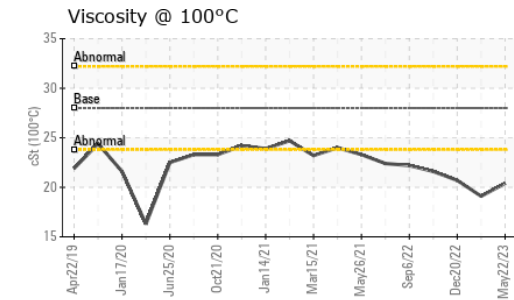
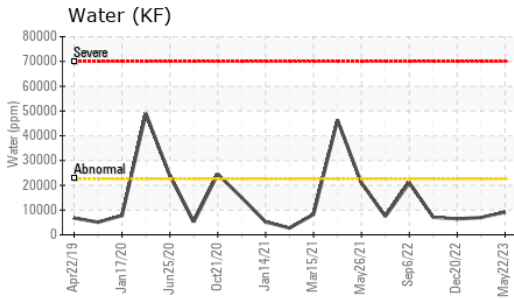
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	---	5393	▲ 11914
Particles >6µm	ASTM D7647 >1300	---	1222	▲ 2288
Particles >14µm	ASTM D7647 >320	---	85	86
Particles >21µm	ASTM D7647 >80	---	22	26
Particles >38µm	ASTM D7647 >20	---	1	6
Particles >71µm	ASTM D7647 >4	---	0	2
Oil Cleanliness	ISO 4406 (c) >20/17/15	---	20/17/14	▲ 21/18/14

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.36	0.24	0.42

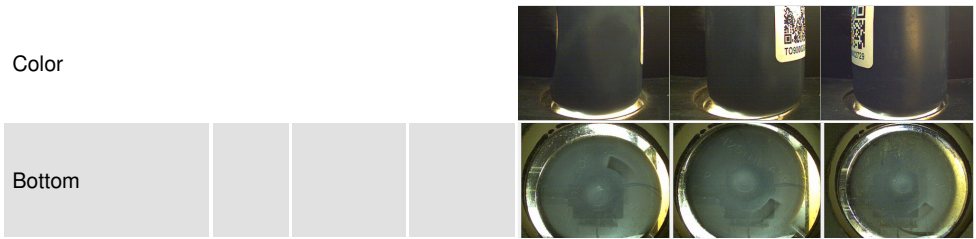
OIL ANALYSIS REPORT



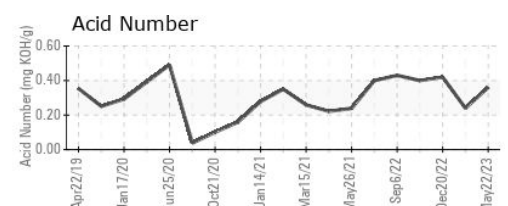
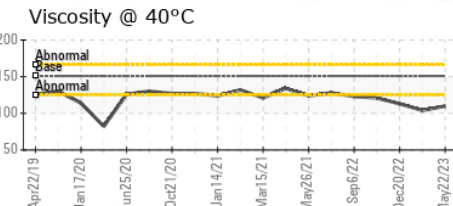
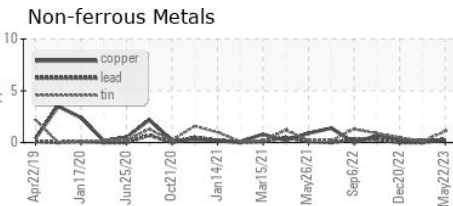
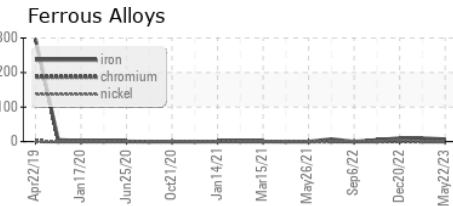
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	▲ MODER	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>2.26	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	151	110	104
Visc @ 100°C	cSt	ASTM D445	28	20.4	19.1
Viscosity Index (VI)	Scale	ASTM D2270	224	211	206

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO90003372 **Received** : 07 Jun 2023
Lab Number : 05867329 **Diagnosed** : 10 Jun 2023
Unique Number : 10507113 **Diagnostician** : Doug Bogart
Test Package : IND 2 (Additional Tests: KF, KV100, PrtCount, VI)

RICHARDS ENERGY COMPRESSION
 1629 WEST BENDER
 HOBBS, NM
 US 88240
 Contact: BILL RICHARDSON
 richardsenergy@windstream.net

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)