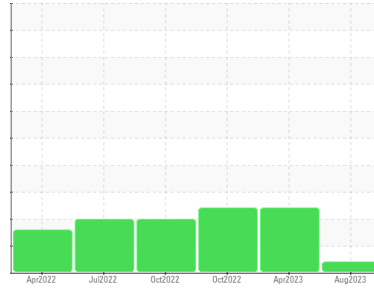


PROBLEM SUMMARY

Sample Rating Trend



VIS DEBRIS



Machine Id
15 ROLL STAND

Component
Hydraulic System

Fluid
TULCO LUBSOIL SUPER HYDRAULIC AW 68 (--- 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
Debris	scalar	*Visual	NONE	▲ MODER	NONE	VLITE

Customer Id: PAPHAS
Sample No.: TO60000490
Lab Number: 05927212
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@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

02 Apr 2023 Diag: Doug Bogart

ISO



We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



17 Oct 2022 Diag: Don Baldrige

ISO



We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



06 Oct 2022 Diag: Don Baldrige

ISO



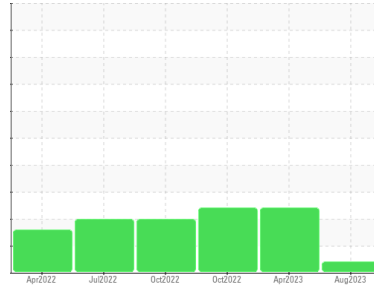
We recommend you service the filters on this component. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



OIL ANALYSIS REPORT

Sample Rating Trend



VIS DEBRIS



Machine Id
15 ROLL STAND

Component
Hydraulic System

Fluid
TULCO LUBSOIL SUPER HYDRAULIC AW 68 (--- 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

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			TO60000490	TO60000501	TO60000455
Sample Date	Client Info			05 Aug 2023	02 Apr 2023	17 Oct 2022
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				ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	0	<1	0
Chromium	ppm	ASTM D5185m	>20	0	0	0
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	0	0
Lead	ppm	ASTM D5185m	>20	<1	0	0
Copper	ppm	ASTM D5185m	>20	2	2	2
Tin	ppm	ASTM D5185m	>20	0	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0

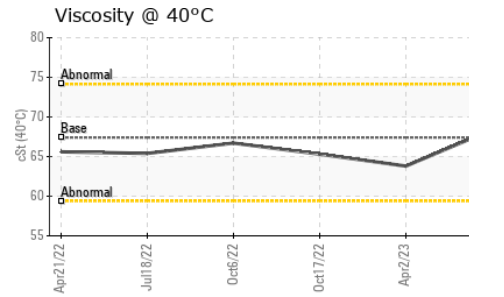
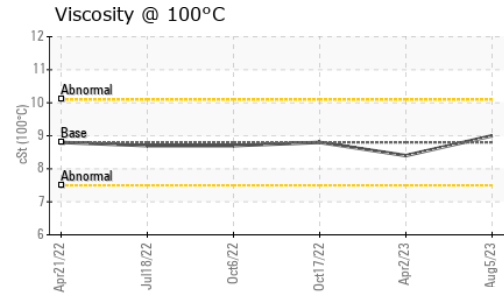
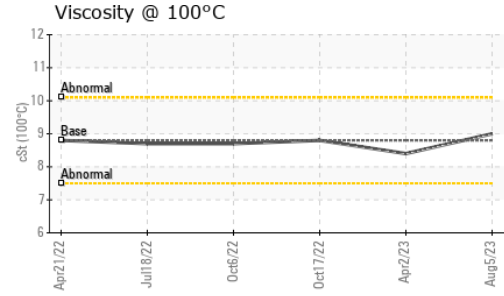
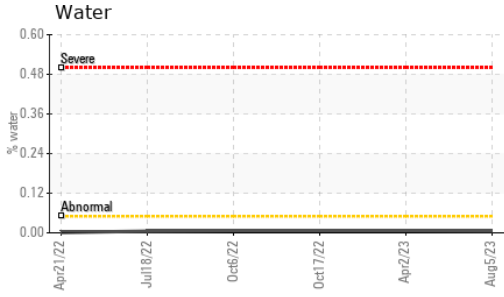
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		<1	<1	0
Magnesium	ppm	ASTM D5185m		71	64	51
Calcium	ppm	ASTM D5185m		82	90	110
Phosphorus	ppm	ASTM D5185m	425	311	320	345
Zinc	ppm	ASTM D5185m	500	389	409	437
Sulfur	ppm	ASTM D5185m	1900	1910	1904	1918

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	<1	0	0
Sodium	ppm	ASTM D5185m		2	<1	0
Potassium	ppm	ASTM D5185m	>20	2	0	0
Water	%	ASTM D6304	>0.05	0.006	0.007	0.007
ppm Water	ppm	ASTM D6304	>500	69.1	70.6	70.2

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	---	▲ 15087	▲ 25448
Particles >6µm		ASTM D7647	>1300	---	▲ 5647	▲ 8248
Particles >14µm		ASTM D7647	>160	---	▲ 758	▲ 1102
Particles >21µm		ASTM D7647	>40	---	▲ 213	▲ 242
Particles >38µm		ASTM D7647	>10	---	▲ 23	▲ 16
Particles >71µm		ASTM D7647	>3	---	0	1
Oil Cleanliness		ISO 4406 (c)	>19/17/14	---	▲ 21/20/17	▲ 22/20/17

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.7	0.36	0.33	0.42

OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	LIGHT	LIGHT
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	▲ MODER	NONE	VLITE
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	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

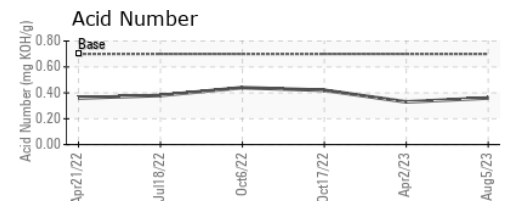
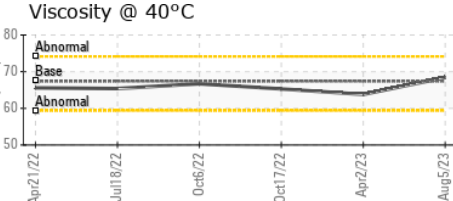
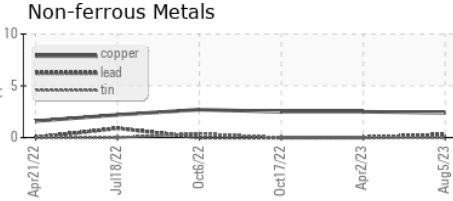
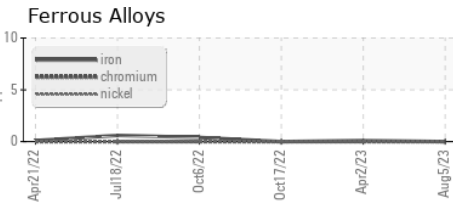
FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	67.4	68.4	63.8	65.3
Visc @ 100°C	cSt	ASTM D445	8.8	9	8.4	8.8
Viscosity Index (VI)	Scale	ASTM D2270	102	105	100	107

SAMPLE IMAGES

Color

Bottom

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO60000490 **Received** : 17 Aug 2023
Lab Number : **05927212** **Diagnosed** : 21 Aug 2023
Unique Number : 10607159 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: KF, KV100, VI)

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 adam.bartel@onepapers.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)