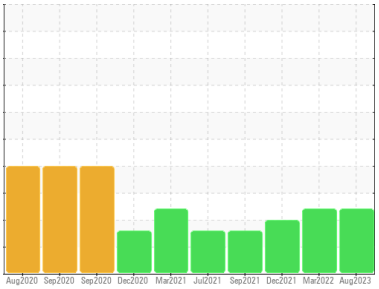
PROBLEM SUMMARY

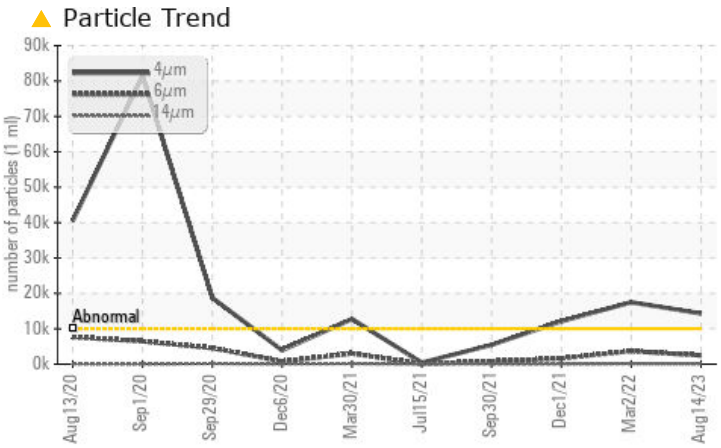
Sample Rating Trend

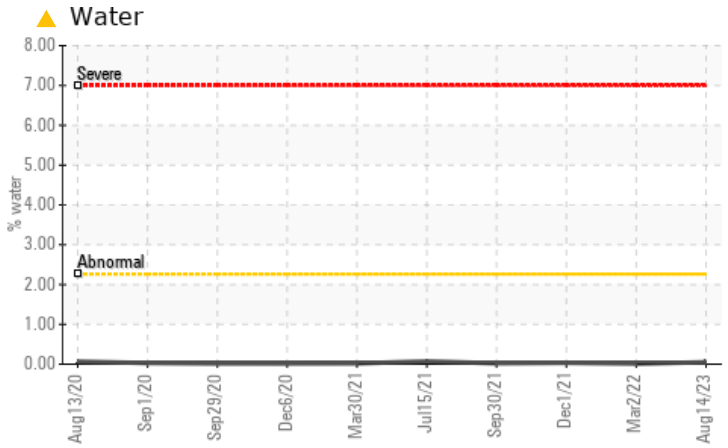


WATER

Area
REBEL 1
Machine Id
FRICK C-163 - REBEL 1
Component
Refrigeration Compressor
Fluid
TULCO LUBSOIL SYN RL WI 100 (250 GAL)

COMPONENT CONDITION SUMMARY





RECOMMENDATION

No corrective action is recommended at this time.
Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ATTENTION**	ATTENTION	ATTENTION
Water	%	ASTM D6304	>2.26	▲ **0.050**	▲ 0.011	▲ 0.032
ppm Water	ppm	ASTM D6304	>22600	▲ **507.8**	▲ 117.0	▲ 320.4
Particles >4µm		ASTM D7647	>10000	▲ **14307**	▲ 17487	▲ 12130
Oil Cleanliness		ISO 4406 (c)	>20/18/15	▲ **21/18/14**	▲ 21/19/14	▲ 21/18/12

Customer Id: ENEGAR
Sample No.: TO90002193
Lab Number: 05931589
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Angela Borella +1 800-237-1369
angela.borella@wearcheckusa.com

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

02 Mar 2022 Diag: Don Baldridge

WATER

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 < 6 microns in size) present in the oil. There is a trace of moisture present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

01 Dec 2021 Diag: Doug Bogart

WATER

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 < 6 microns in size) present in the oil. There is a trace of moisture present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

30 Sep 2021 Diag: Doug Bogart

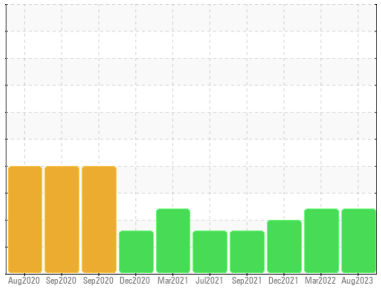
WATER

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 trace of moisture present in the oil. The amount and size of particulates present in the system are acceptable. 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



WATER

Area
REBEL 1
Machine Id
FRICK C-163 - REBEL 1
Component
Refrigeration Compressor
Fluid
TULCO LUBSOIL SYN RL WI 100 (250 GAL)

DIAGNOSIS

Recommendation
No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear
All component wear rates are normal.

Contamination
There is a moderate amount of silt (particulates < 6 microns in size) present in the oil. There is a trace of moisture 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		**TO90002193**	TO90000050	TO90001857
Sample Date		Client Info		**14 Aug 2023**	02 Mar 2022	01 Dec 2021
Machine Age	hrs	Client Info		**437**	437	437
Oil Age	hrs	Client Info		**437**	437	437
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ATTENTION**	ATTENTION	ATTENTION

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>8	**1**	1	10
Chromium	ppm	ASTM D5185m	>2	**0**	0	0
Nickel	ppm	ASTM D5185m		**0**	0	<1
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m	>2	**0**	<1	0
Aluminum	ppm	ASTM D5185m	>3	**0**	<1	0
Lead	ppm	ASTM D5185m	>2	**0**	0	<1
Copper	ppm	ASTM D5185m	>8	**<1**	0	0
Tin	ppm	ASTM D5185m	>4	**1**	<1	1
Antimony	ppm	ASTM D5185m		**---**	4	0
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**	3	<1
Barium	ppm	ASTM D5185m		**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	0	0
Magnesium	ppm	ASTM D5185m		**<1**	0	0
Calcium	ppm	ASTM D5185m		**<1**	0	0
Phosphorus	ppm	ASTM D5185m	1500	**1411**	541	1134
Zinc	ppm	ASTM D5185m		**0**	3	8
Sulfur	ppm	ASTM D5185m		**12**	0	46

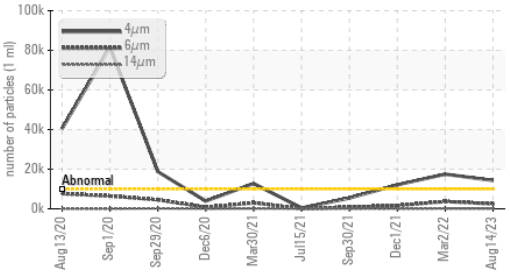
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>15	**2**	2	5
Sodium	ppm	ASTM D5185m		**3**	6	6
Potassium	ppm	ASTM D5185m	>20	**<1**	0	<1
Water	%	ASTM D6304	>2.26	▲ **0.050**	▲ 0.011	▲ 0.032
ppm Water	ppm	ASTM D6304	>22600	▲ **507.8**	▲ 117.0	▲ 320.4

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ **14307**	▲ 17487	▲ 12130
Particles >6µm		ASTM D7647	>2500	**2463**	▲ 3688	1605
Particles >14µm		ASTM D7647	>320	**88**	127	29
Particles >21µm		ASTM D7647	>80	**17**	26	8
Particles >38µm		ASTM D7647	>20	**0**	0	0
Particles >71µm		ASTM D7647	>4	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	▲ **21/18/14**	▲ 21/19/14	▲ 21/18/12

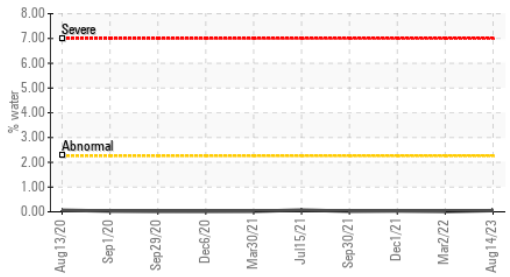
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974	0.04	**0.014**	0.026	0.015

OIL ANALYSIS REPORT

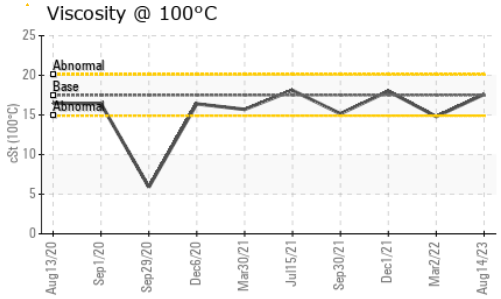
Particle Trend



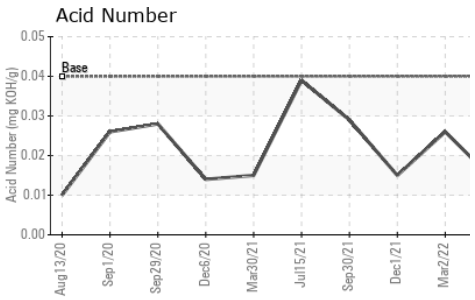
Water



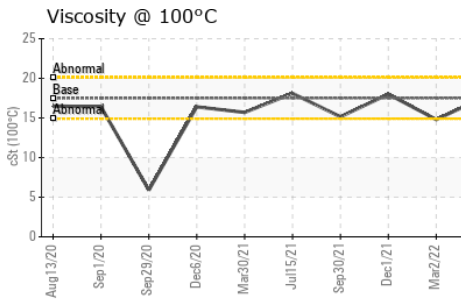
Viscosity @ 100°C



Acid Number



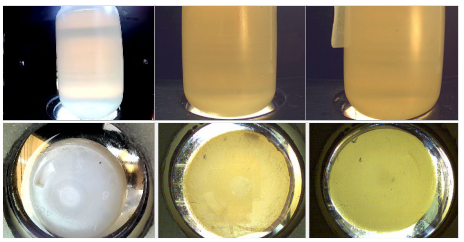
Viscosity @ 100°C



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	>2.26	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

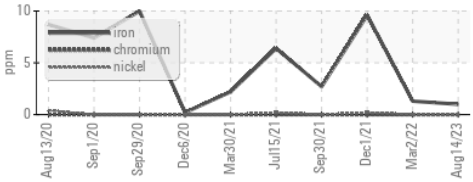
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	97	**104**	99.2	106
Visc @ 100°C	cSt	ASTM D445	17.5	**17.6**	14.8	18.0
Viscosity Index (VI)	Scale	ASTM D2270	198	**186**	155	188

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

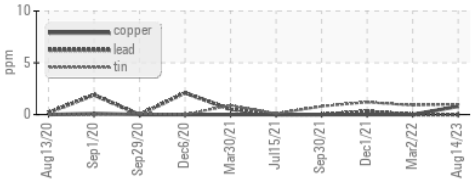


GRAPHS

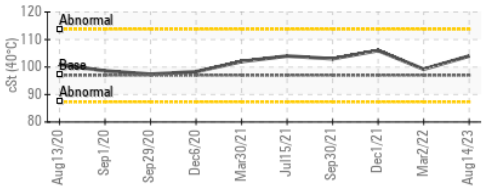
Ferrous Alloys



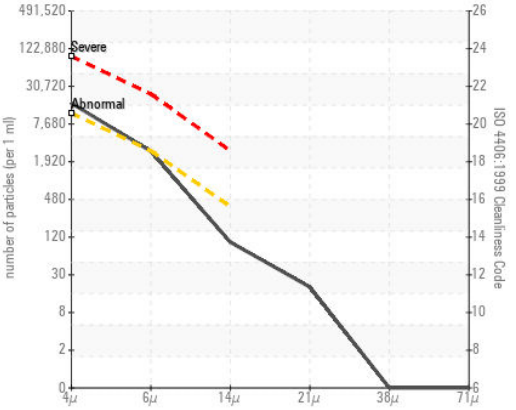
Non-ferrous Metals



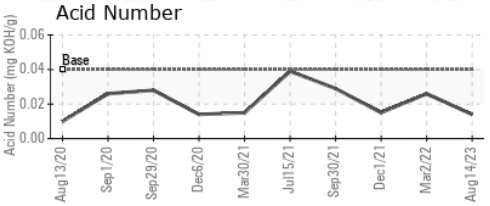
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO90002193 **Received** : 22 Aug 2023
Lab Number : 05931589 **Diagnosed** : 24 Aug 2023
Unique Number : 10616860 **Diagnostician** : Angela Borella
Test Package : IND 2 (Additional Tests: 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)

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GARDEN CITY, TX
US 79739
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Report Id: ENEGAR [WUSCAR] 05931589 (Generated: 08/24/2023 14:54:01) Rev: 1

Submitted By: ERIC THORNTON