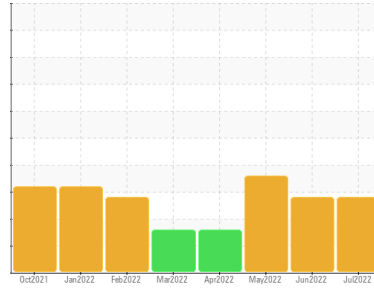


PROBLEM SUMMARY

Sample Rating Trend



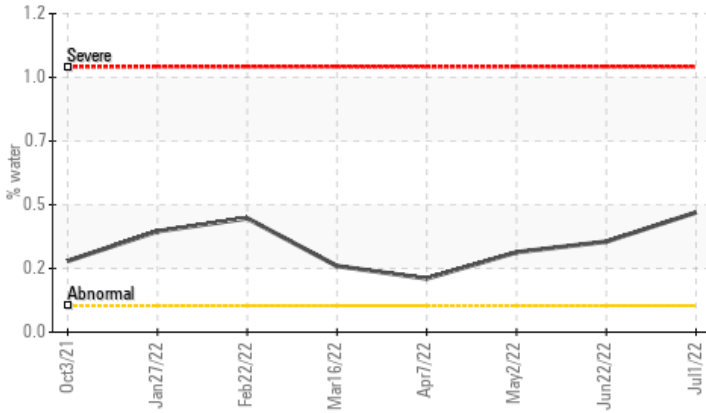
WATER



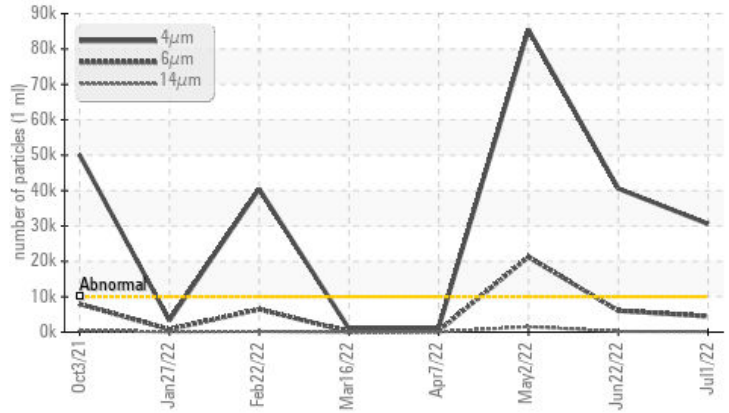
Machine Id
FRICK FRICK A
 Component
Screw Compressor
 Fluid
ISO 100 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Water



▲ Particle Trend



RECOMMENDATION

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

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Water	%	ASTM D6304	>0.1	▲ 0.451	▲ 0.341	▲ 0.301
ppm Water	ppm	ASTM D6304	>1000	▲ 4512.2	▲ 3410.1	▲ 3014.1
Particles >4µm		ASTM D7647	>10000	▲ 30572	▲ 40554	▲ 85471
Particles >6µm		ASTM D7647	>2500	▲ 4466	▲ 6070	▲ 21240
Oil Cleanliness		ISO 4406 (c)	>20/18/15	▲ 22/19/14	▲ 23/20/15	▲ 24/22/18

Customer Id: GARROW
 Sample No.: TO60000182
 Lab Number: 05595392
 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

Action	Status	Date	Done By	Description
Change Filter	MISSED	Aug 23 2022	?	We recommend you service the filters on this component.

HISTORICAL DIAGNOSIS

22 Jun 2022 Diag: Angela Borella

WATER



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 silt (particulates < 14 microns in size) present in the oil. There is a light concentration of water present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



02 May 2022 Diag: Doug Bogart

WATER



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. There is a light concentration of water 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 Apr 2022 Diag: Jonathan Hester

WATER



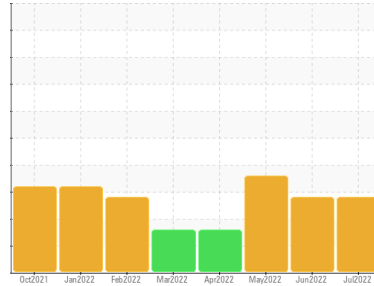
No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a light concentration of water present in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
FRICK FRICK A
 Component
Screw Compressor
 Fluid
ISO 100 (--- GAL)

DIAGNOSIS

Recommendation

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

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) 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			TO60000182	TO50000459	TO70000048
Sample Date	Client Info			01 Jul 2022	22 Jun 2022	02 May 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	>60	<1	<1	0
Chromium	ppm	ASTM D5185m	>4	0	0	0
Nickel	ppm	ASTM D5185m		<1	<1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		<1	<1	<1
Aluminum	ppm	ASTM D5185m	>5	<1	<1	0
Lead	ppm	ASTM D5185m	>10	<1	<1	<1
Copper	ppm	ASTM D5185m	>30	<1	<1	0
Tin	ppm	ASTM D5185m	>15	2	1	<1
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		7	4	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		<1	<1	0
Calcium	ppm	ASTM D5185m		2	4	6
Phosphorus	ppm	ASTM D5185m		28	31	33
Zinc	ppm	ASTM D5185m		5	2	2
Sulfur	ppm	ASTM D5185m		1584	1130	947

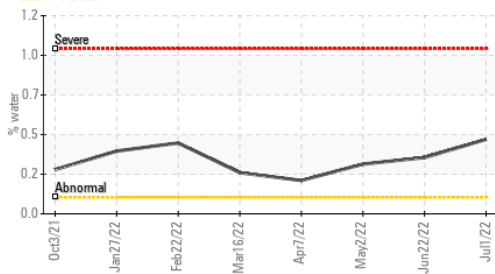
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	23	22	19
Sodium	ppm	ASTM D5185m		0	0	0
Potassium	ppm	ASTM D5185m	>20	1	1	0
Water	%	ASTM D6304	>0.1	▲ 0.451	▲ 0.341	▲ 0.301
ppm Water	ppm	ASTM D6304	>1000	▲ 4512.2	▲ 3410.1	▲ 3014.1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	▲ 30572	▲ 40554	▲ 85471
Particles >6µm		ASTM D7647	>2500	▲ 4466	▲ 6070	▲ 21240
Particles >14µm		ASTM D7647	>320	145	201	▲ 1545
Particles >21µm		ASTM D7647	>80	31	38	▲ 448
Particles >38µm		ASTM D7647	>20	1	1	16
Particles >71µm		ASTM D7647	>4	0	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	▲ 22/19/14	▲ 23/20/15	▲ 24/22/18

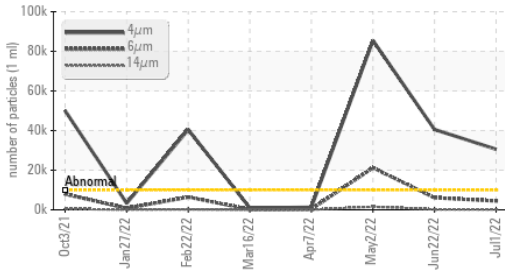
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.531	0.305	0.185

OIL ANALYSIS REPORT

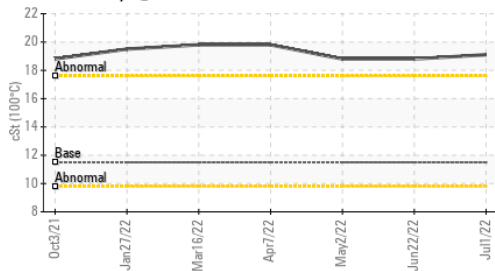
Water



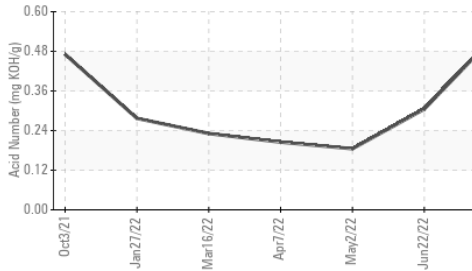
Particle Trend



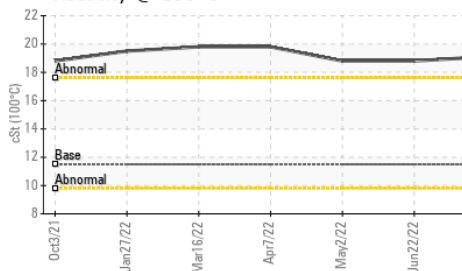
Viscosity @ 100°C



Acid Number



Viscosity @ 100°C



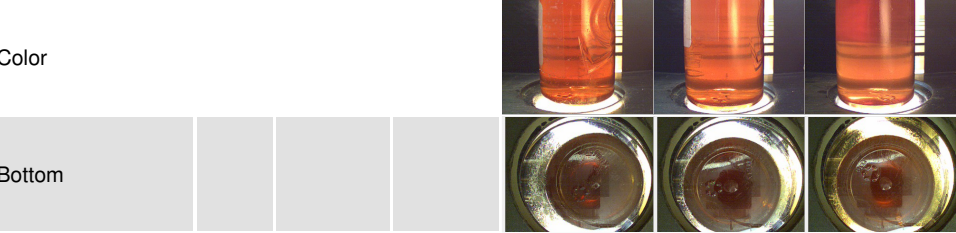
Acid Number



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

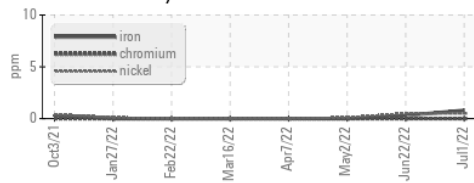
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	100	111	109
Visc @ 100°C	cSt	ASTM D445	11.5	19.1	18.8
Viscosity Index (VI)	Scale	ASTM D2270	102	193	193

SAMPLE IMAGES

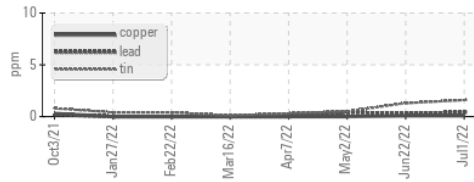


GRAPHS

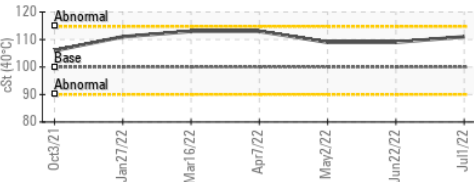
Ferrous Alloys



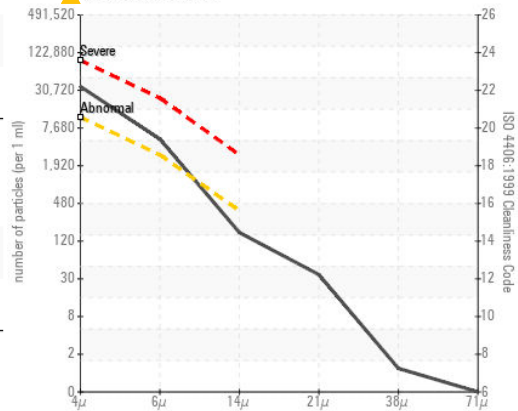
Non-ferrous Metals



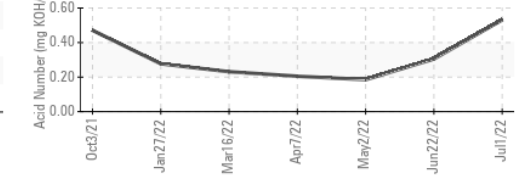
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO60000182 **Received** : 19 Jul 2022
Lab Number : 05595392 **Diagnosed** : 21 Jul 2022
Unique Number : 10059872 **Diagnostician** : Angela Borella
Test Package : IND 2 (Additional Tests: KF, KV100, PrtCount, VI)

GARLAND RENEWABLES
 3175 ELM GROVE RD
 ROWLETT, TX
 US 75089
 Contact: DUSTIN FRY
 dustin@morrowrenew.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)

T:
F: