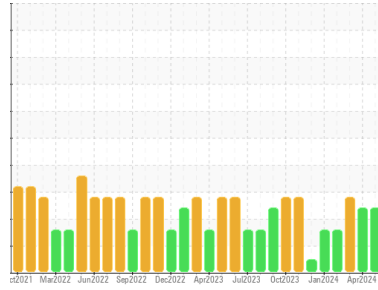


# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



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

**DIAGNOSIS**

**Recommendation**

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

**Wear**

All component wear rates are normal.

**Contamination**

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. There is a light concentration of water 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			<b>TO50002557</b>	TO50001892	TO50001894
Sample Date	Client Info			<b>07 May 2024</b>	19 Apr 2024	06 Mar 2024
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>60	<1	0	0
Chromium	ppm	ASTM D5185m	>4	<1	0	0
Nickel	ppm	ASTM D5185m		<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>5	<b>2</b>	0	0
Lead	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>30	<1	0	0
Tin	ppm	ASTM D5185m	>15	<1	1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0

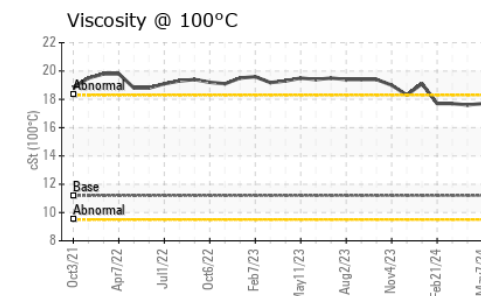
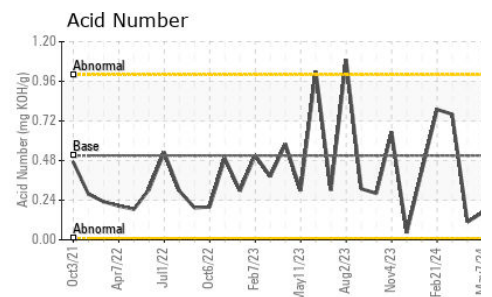
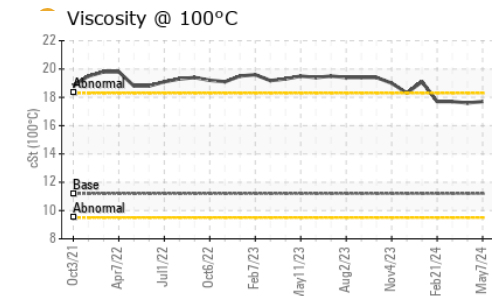
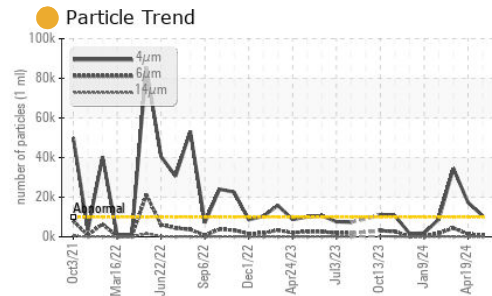
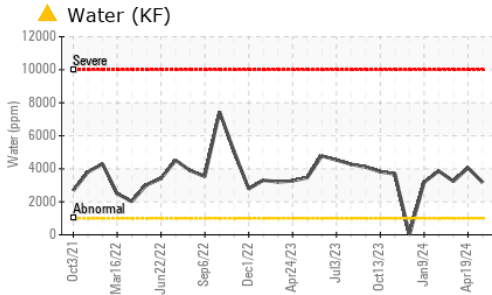
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	5	<b>0</b>	0	0
Barium	ppm	ASTM D5185m	5	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	5	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m	5	<1	<1	<1
Calcium	ppm	ASTM D5185m	5	<b>4</b>	0	0
Phosphorus	ppm	ASTM D5185m	150	<b>4</b>	4	0
Zinc	ppm	ASTM D5185m	5	<b>0</b>	0	0
Sulfur	ppm	ASTM D5185m	5000	<b>1000</b>	1135	1114

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	<b>20</b>	23	15
Sodium	ppm	ASTM D5185m		<b>3</b>	0	<1
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	2	<1
Water	%	ASTM D6304	>0.1	<b>▲ 0.317</b>	▲ 0.404	▲ 0.324
ppm Water	ppm	ASTM D6304	>1000	<b>▲ 3174</b>	▲ 4049	▲ 3237

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	<b>● 10586</b>	● 17352	▲ 34534
Particles >6µm		ASTM D7647	>2500	<b>930</b>	1324	● 4414
Particles >14µm		ASTM D7647	>320	<b>40</b>	34	155
Particles >21µm		ASTM D7647	>80	<b>13</b>	10	43
Particles >38µm		ASTM D7647	>20	<b>1</b>	0	0
Particles >71µm		ASTM D7647	>4	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	<b>● 21/17/12</b>	● 21/18/12	▲ 22/19/14

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.51	<b>0.166</b>	0.107	0.76

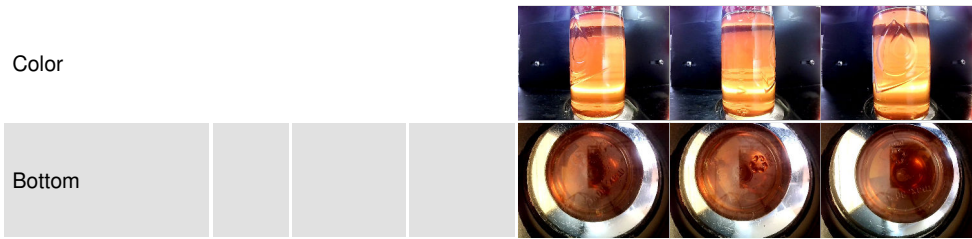
# OIL ANALYSIS REPORT



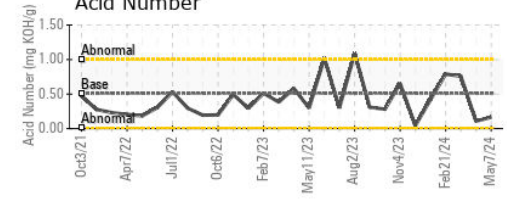
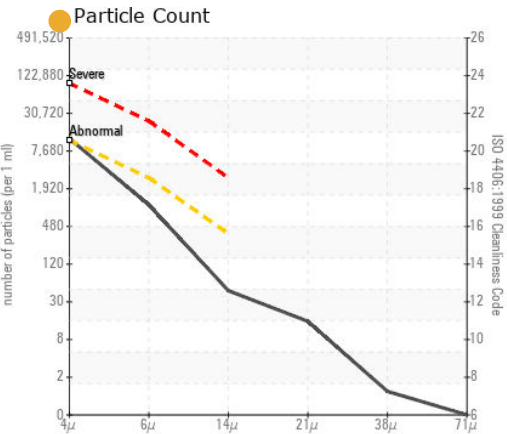
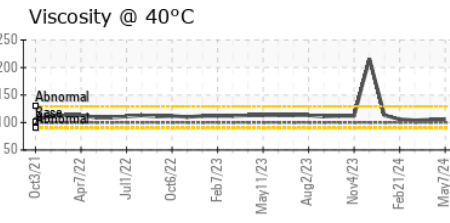
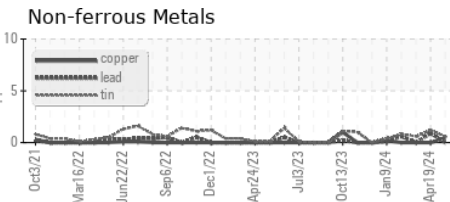
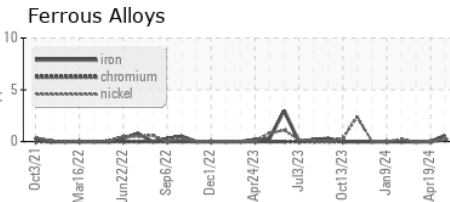
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	100	105	104
Visc @ 100°C	cSt	ASTM D445	11.2	17.7	17.6
Viscosity Index (VI)	Scale	ASTM D2270	97	186	185

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO50002557 **Received** : 14 May 2024  
**Lab Number** : 06178840 **Tested** : 16 May 2024  
**Unique Number** : 11030166 **Diagnosed** : 16 May 2024 - Don Baldrige  
**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)