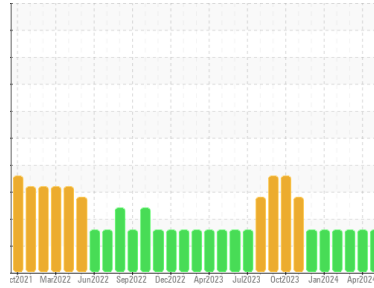


OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
FRICK FRICK B
 Component
Screw Compressor
 Fluid
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 light concentration of water present in the oil. The amount and size of particulates present in the system are acceptable.

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	TO50002558	TO50001893	TO50001895
Sample Date	Client Info	07 May 2024	19 Apr 2024	06 Mar 2024
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	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	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	0	0	0
Aluminum	ppm	ASTM D5185m >5	2	0	0
Lead	ppm	ASTM D5185m >10	0	<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	0	0	0
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	<1	0
Magnesium	ppm	ASTM D5185m	<1	<1	1
Calcium	ppm	ASTM D5185m	4	<1	0
Phosphorus	ppm	ASTM D5185m	7	3	0
Zinc	ppm	ASTM D5185m	2	0	0
Sulfur	ppm	ASTM D5185m	561	967	1376

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >50	12	13	12
Sodium	ppm	ASTM D5185m	3	0	<1
Potassium	ppm	ASTM D5185m >20	2	2	<1
Water	%	ASTM D6304 >0.1	▲ 0.392	▲ 0.402	▲ 0.379
ppm Water	ppm	ASTM D6304 >1000	▲ 3921	▲ 4028	▲ 3790

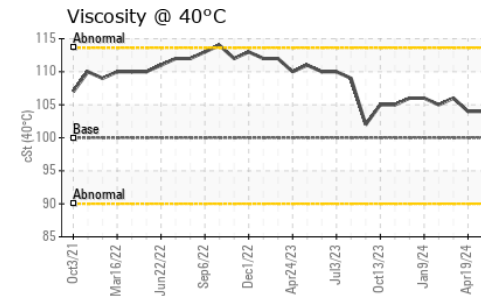
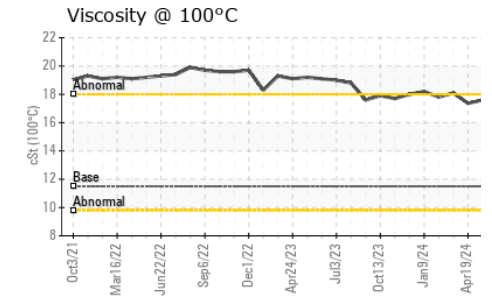
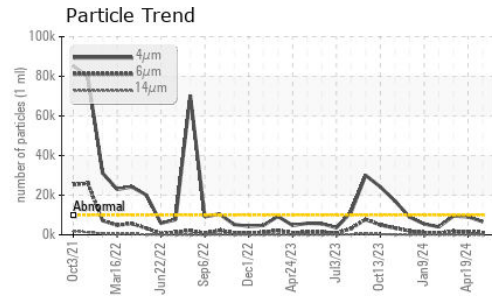
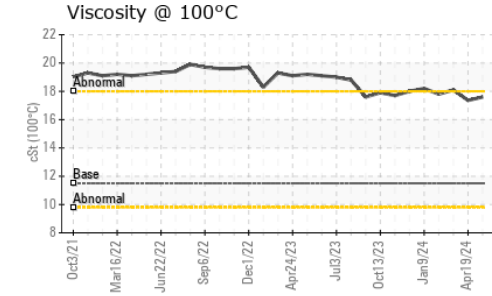
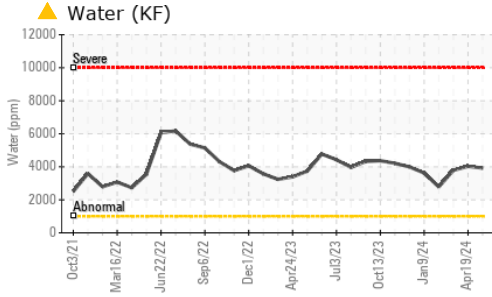
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	6644	9118	9462
Particles >6µm	ASTM D7647 >2500	1127	1462	1818
Particles >14µm	ASTM D7647 >320	61	70	98
Particles >21µm	ASTM D7647 >80	15	17	21
Particles >38µm	ASTM D7647 >20	1	1	0
Particles >71µm	ASTM D7647 >4	0	0	0
Oil Cleanliness	ISO 4406 (c) >20/18/15	20/17/13	20/18/13	20/18/14

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.071	0.102	0.82

OIL ANALYSIS REPORT

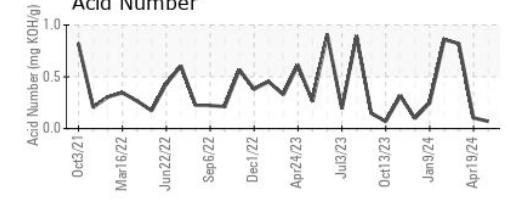
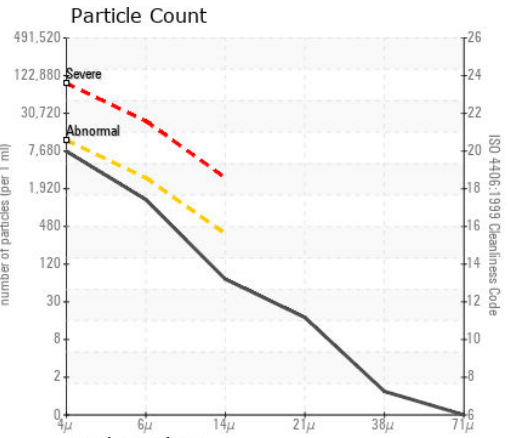
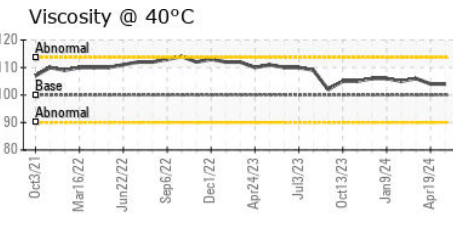
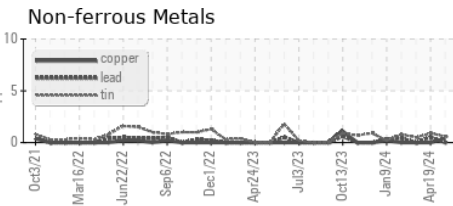
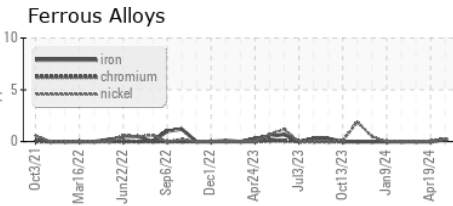


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	104	106
Visc @ 100°C	cSt	ASTM D445	11.5	17.6	18.1
Viscosity Index (VI)	Scale	ASTM D2270	102	186	183

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TO50002558 **Received** : 14 May 2024
Lab Number : 06178841 **Tested** : 16 May 2024
Unique Number : 11030167 **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)