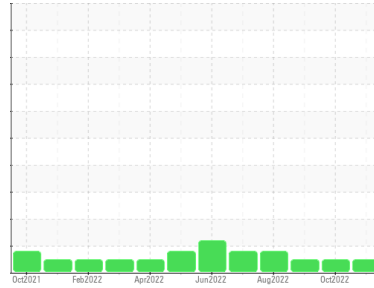


# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**ARIEL**  
Component  
**Reciprocating Compressor**  
Fluid  
**NOT GIVEN (--- GAL)**

**DIAGNOSIS**

**Recommendation**

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

**Wear**

All component wear rates are normal.

**Contamination**

There is no indication of any contamination 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			<b>TO60000193</b>	TO60000191	TO60000190
Sample Date	Client Info			<b>15 Nov 2022</b>	06 Oct 2022	06 Sep 2022
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>NORMAL</b>	NORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>0</b>	<1	0
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m		<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>0</b>	0	0
Lead	ppm	ASTM D5185m	>25	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>50	<b>0</b>	0	<1
Tin	ppm	ASTM D5185m	>15	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

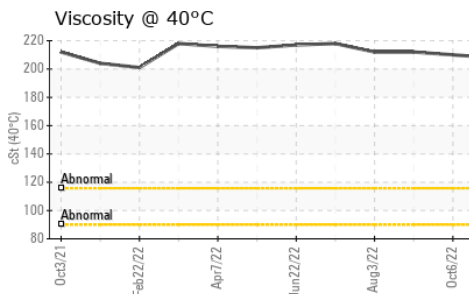
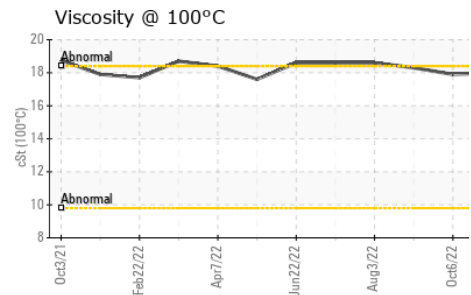
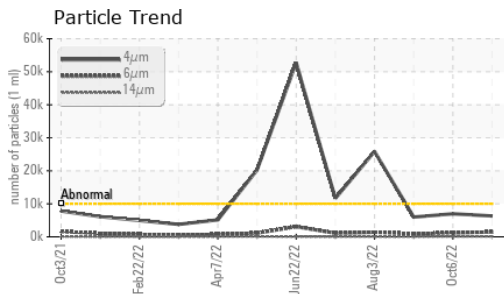
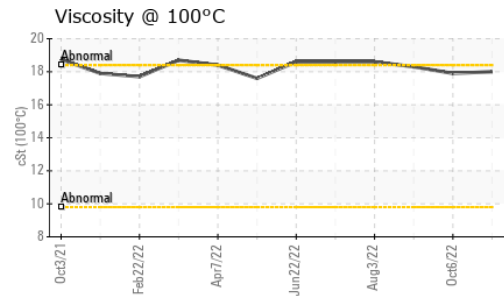
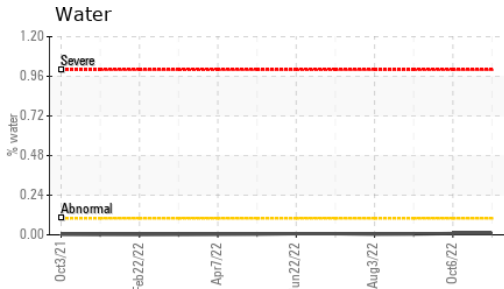
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		<b>0</b>	0	<1
Barium	ppm	ASTM D5185m		<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>0</b>	2	4
Calcium	ppm	ASTM D5185m		<b>0</b>	2	4
Phosphorus	ppm	ASTM D5185m		<b>14</b>	19	32
Zinc	ppm	ASTM D5185m		<b>0</b>	3	9
Sulfur	ppm	ASTM D5185m		<b>3312</b>	3343	2921

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>2</b>	3	3
Sodium	ppm	ASTM D5185m		<b>0</b>	0	0
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	0
Water	%	ASTM D6304	>0.1	<b>0.008</b>	0.008	0.005
ppm Water	ppm	ASTM D6304	>1000	<b>84.1</b>	81.7	54.8

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	<b>6308</b>	6972	5985
Particles >6µm		ASTM D7647	>2500	<b>1465</b>	1209	913
Particles >14µm		ASTM D7647	>320	<b>115</b>	101	42
Particles >21µm		ASTM D7647	>80	<b>29</b>	21	9
Particles >38µm		ASTM D7647	>20	<b>0</b>	1	1
Particles >71µm		ASTM D7647	>4	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>20/18/15	<b>20/18/14</b>	20/17/14	20/17/13

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.101</b>	0.098	0.029

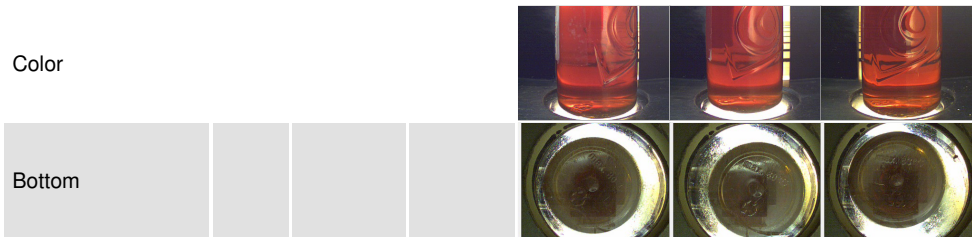
# OIL ANALYSIS REPORT



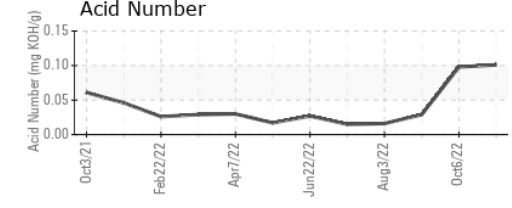
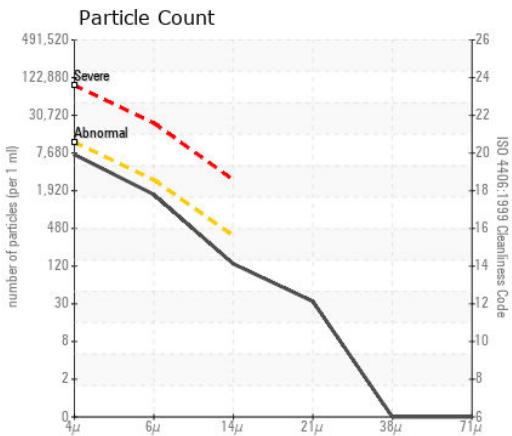
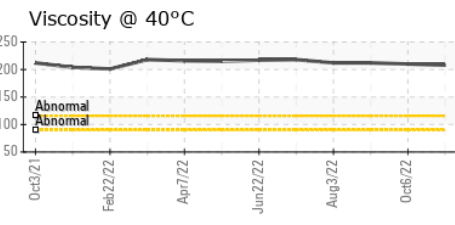
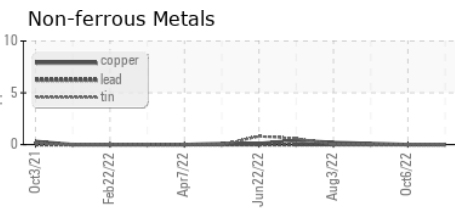
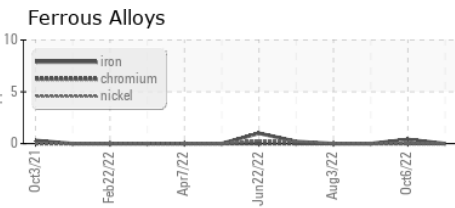
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	<b>208</b>	210	212
Visc @ 100°C	cSt	ASTM D445	<b>18.0</b>	17.9	18.3
Viscosity Index (VI)	Scale	ASTM D2270	<b>94</b>	92	95

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TO60000193 **Received** : 18 Nov 2022  
**Lab Number** : 05698148 **Diagnosed** : 28 Nov 2022  
**Unique Number** : 10227722 **Diagnostician** : Jonathan Hester  
**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: