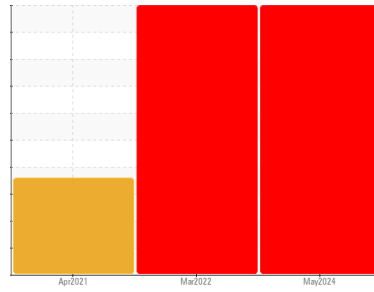




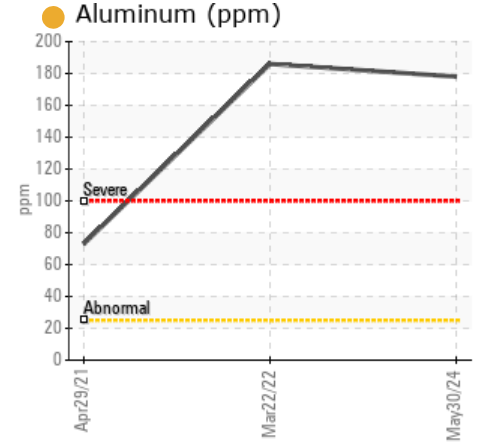
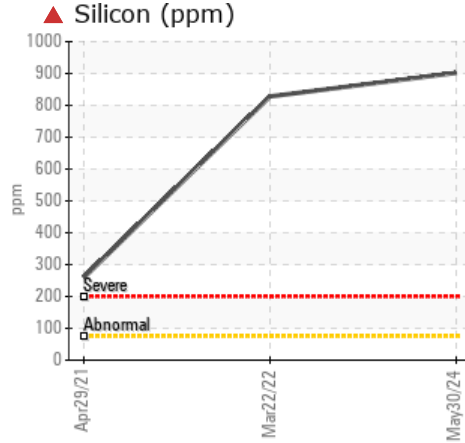
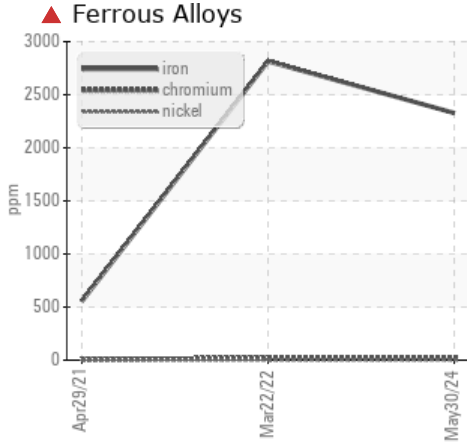
PROBLEM SUMMARY

Sample Rating Trend



Machine Id
E-158
 Component
Left Final Drive
 Fluid
PHILLIPS 80W90 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	SEVERE	ABNORMAL
Iron	ppm	ASTM D5185m	>500	▲ 2328	▲ 2815	▲ 555
Chromium	ppm	ASTM D5185m	>10	▲ 15	▲ 20	5
Titanium	ppm	ASTM D5185m		▲ 14	▲ 11	3
Silicon	ppm	ASTM D5185m	>75	▲ 902	▲ 828	▲ 259

Customer Id: DUKRAL
 Sample No.: WC0703797
 Lab Number: 06203165
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Sean Felton +1 919-379-4092
sfelton@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
Inspect Wear Source	---	---	?	We advise that you inspect for the source(s) of wear.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.

HISTORICAL DIAGNOSIS

WEAR



22 Mar 2022 Diag: Jonathan Hester

We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Gear wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil is no longer serviceable due to the presence of contaminants.

view report



DIRT



29 Apr 2021 Diag: Don Baldrige

We advise that you check all areas where dirt can enter the system. We recommend an early resample to monitor this condition. Gear wear is indicated. Moderate concentration of visible dirt/debris present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The condition of the oil is acceptable for the time in service.

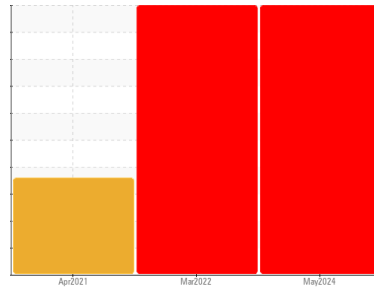
view report





OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
E-158
 Component
Left Final Drive
 Fluid
PHILLIPS 80W90 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

Wear

Gear wear is indicated.

Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Fluid Condition

The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0703797	WC0663450	WC0580562
Sample Date	Client Info		30 May 2024	22 Mar 2022	29 Apr 2021
Machine Age	hrs	Client Info	8037	0	3425
Oil Age	hrs	Client Info	1000	0	0
Oil Changed	Client Info		Changed	N/A	N/A
Sample Status			SEVERE	SEVERE	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>500	▲ 2328	▲ 2815	▲ 555
Chromium	ppm	ASTM D5185m	>10	▲ 15	▲ 20	5
Nickel	ppm	ASTM D5185m	>10	2	<1	2
Titanium	ppm	ASTM D5185m		▲ 14	▲ 11	3
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	● 178	● 186	● 73
Lead	ppm	ASTM D5185m	>25	0	<1	0
Copper	ppm	ASTM D5185m	>50	3	5	1
Tin	ppm	ASTM D5185m	>10	<1	0	0
Antimony	ppm	ASTM D5185m	>5	---	---	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<1	5	6
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		<1	2	0
Manganese	ppm	ASTM D5185m		18	24	6
Magnesium	ppm	ASTM D5185m		17	38	14
Calcium	ppm	ASTM D5185m		27	124	25
Phosphorus	ppm	ASTM D5185m		97	858	1891
Zinc	ppm	ASTM D5185m		0	25	12
Sulfur	ppm	ASTM D5185m		14682	17994	24636

CONTAMINANTS

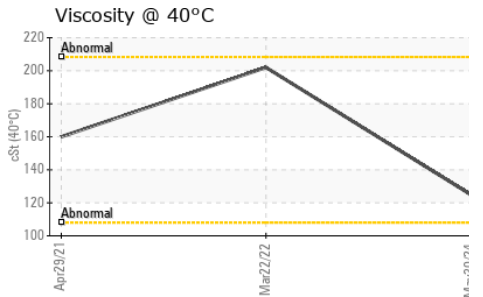
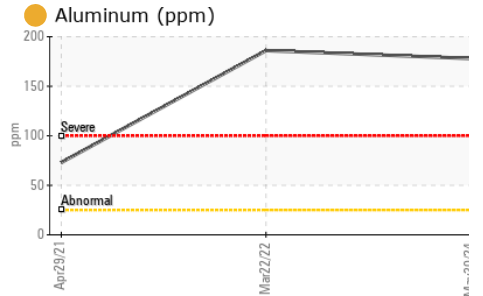
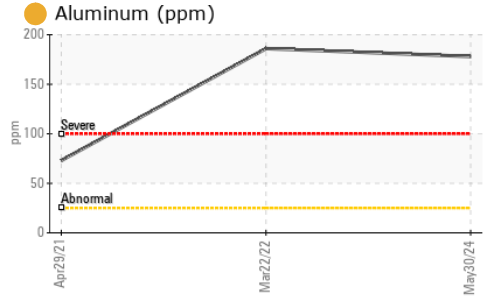
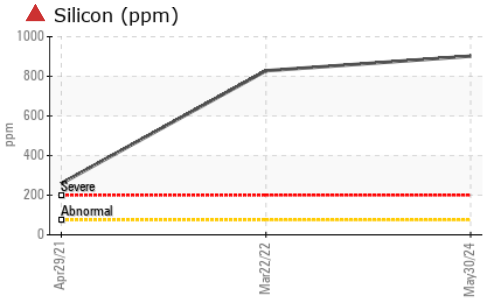
	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>75	▲ 902	▲ 828	▲ 259
Sodium	ppm	ASTM D5185m		34	19	7
Potassium	ppm	ASTM D5185m	>20	37	28	19

VISUAL

	method	limit/base	current	history1	history2	
White Metal	scalar	*Visual	NONE	NONE	MODER	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	MODER
Debris	scalar	*Visual	NONE	NONE	NONE	▲ MODER
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	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG



OIL ANALYSIS REPORT

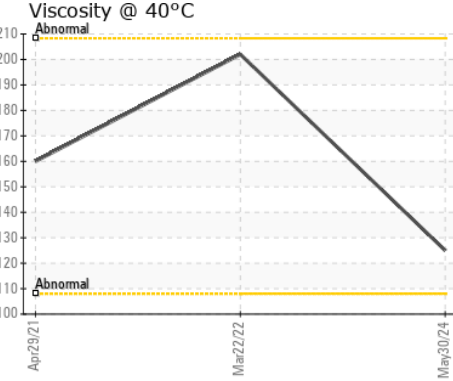
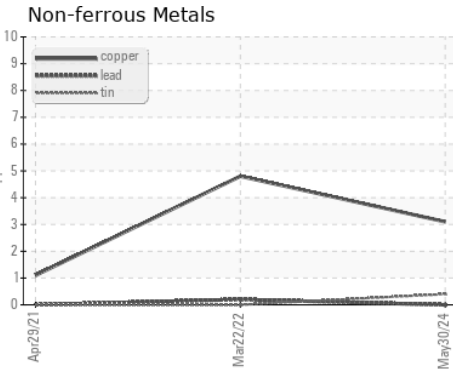
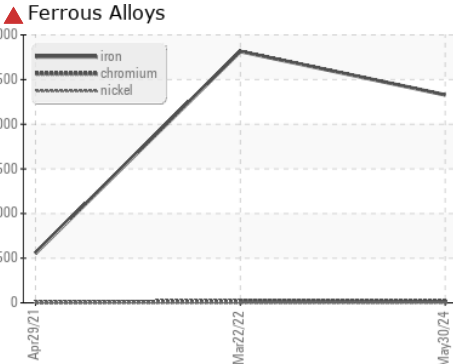


FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	125	202	160

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color				no image	no image	no image
Bottom				no image	no image	no image

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0703797
Lab Number : 06203165
Unique Number : 11070626
Test Package : CONST

Received : 07 Jun 2024
Tested : 10 Jun 2024
Diagnosed : 11 Jun 2024 - Sean Felton

DUKE LAZZARA
 4201 FAYETTEVILLE RD
 RALEIGH, NC
 US 27603
 Contact: BRANDON BYRUM
 b.byrum@dukellazzara.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)