

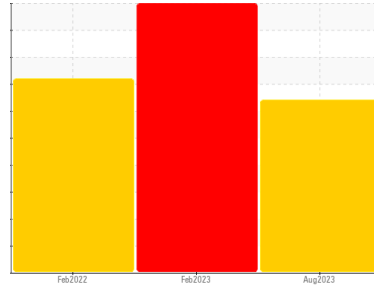


# PROBLEM SUMMARY



Area  
**[18573]**  
 Machine Id  
**30-77**  
 Component  
**Left Final Drive**  
 Fluid  
**CONOCO PHILLIPS GUARDOL ECT 15W40 (--- GAL)**

Sample Rating Trend

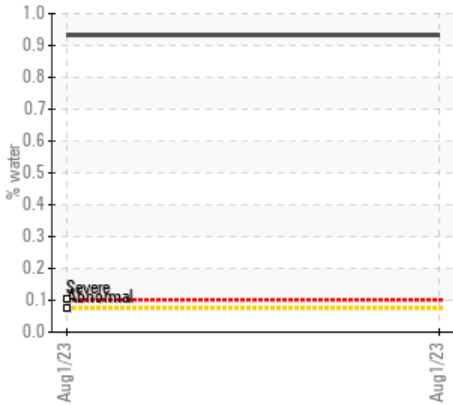


WATER

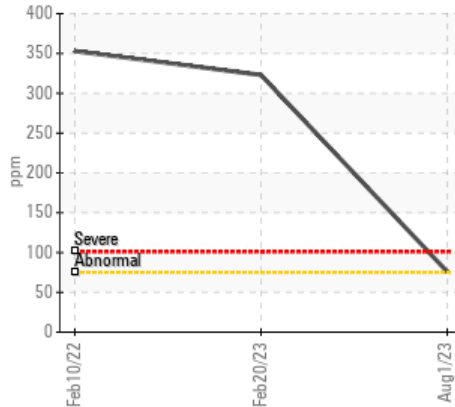


## COMPONENT CONDITION SUMMARY

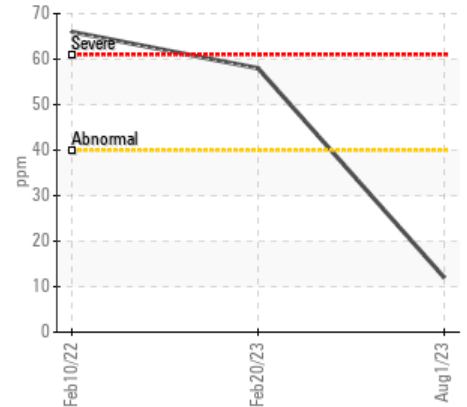
Water



Silicon (ppm)



Aluminum (ppm)



## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	SEVERE	SEVERE
Aluminum	ppm	ASTM D5185m	>40	▲ 12	▲ 58	▲ 66
Silicon	ppm	ASTM D5185m	>75	▲ 76	● 323	● 353
Water	%	ASTM D6304	>0.075	● 0.933	---	---
ppm Water	ppm	ASTM D6304	>750	● 9330	---	---
Appearance	scalar	*Visual	NORML	▲ MILKY	NORML	NORML
Emulsified Water	scalar	*Visual	>0.075	● 0.2%	NEG	NEG

Customer Id: MANTUL  
 Sample No.: WC0802440  
 Lab Number: 05928978  
 Test Package: CONST



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

To change component or sample information:  
 Customer Service +1 1-800-237-1369  
[customerservice@wearcheck.com](mailto:customerservice@wearcheck.com)

## RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Water Drain-off	---	---	?	We advise that you follow the water drain-off procedure for this component.
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.
Check Water Access	---	---	?	We advise that you check for the source of water entry.

## HISTORICAL DIAGNOSIS

### 20 Feb 2023 Diag: Don Baldrige

#### WEAR



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. 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



### 10 Feb 2022 Diag: Doug Bogart

#### DIRT



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 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





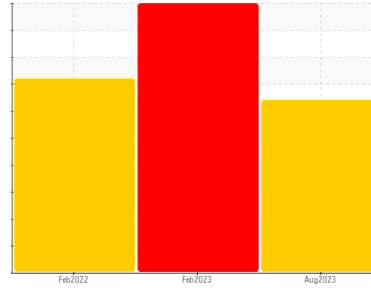
# OIL ANALYSIS REPORT

## Sample Rating Trend

WATER



Area  
**[18573]**  
 Machine Id  
**30-77**  
 Component  
**Left Final Drive**  
 Fluid  
**CONOCO PHILLIPS GUARDOL ECT 15W40 (--- GAL)**



### DIAGNOSIS

#### Recommendation

We advise that you check all areas where dirt can enter the system. We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition.

#### Wear

All component wear rates are normal.

#### Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a high concentration of water present in the oil.

#### Fluid Condition

The condition of the oil is acceptable for the time in service.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0802440</b>	WC0754826	WC0619424
Sample Date	Client Info		<b>01 Aug 2023</b>	20 Feb 2023	10 Feb 2022
Machine Age	hrs	Client Info	<b>3625</b>	3080	2577
Oil Age	hrs	Client Info	<b>545</b>	1080	500
Oil Changed	Client Info		<b>Not Chngd</b>	Changed	N/A
Sample Status			<b>SEVERE</b>	SEVERE	SEVERE

### WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >750	<b>425</b>	1320	1082
Chromium	ppm	ASTM D5185m >9	<b>6</b>	13	11
Nickel	ppm	ASTM D5185m >10	<b>1</b>	4	2
Titanium	ppm	ASTM D5185m	<b>1</b>	3	4
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >40	<b>12</b>	58	66
Lead	ppm	ASTM D5185m >15	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m >40	<b>&lt;1</b>	2	2
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	0
Antimony	ppm	ASTM D5185m >5	<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

### ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 85	<b>49</b>	198	211
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>2</b>	7	5
Manganese	ppm	ASTM D5185m	<b>7</b>	16	14
Magnesium	ppm	ASTM D5185m 350	<b>15</b>	24	12
Calcium	ppm	ASTM D5185m 1800	<b>64</b>	162	167
Phosphorus	ppm	ASTM D5185m 1000	<b>343</b>	960	1044
Zinc	ppm	ASTM D5185m 1100	<b>30</b>	93	83
Sulfur	ppm	ASTM D5185m 3500	<b>19997</b>	19332	17786

### CONTAMINANTS

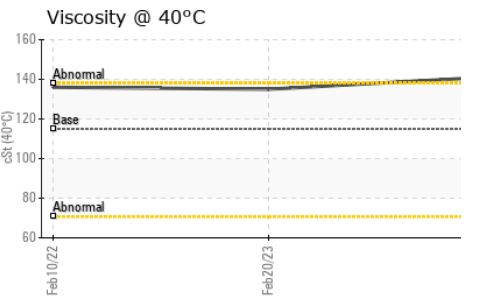
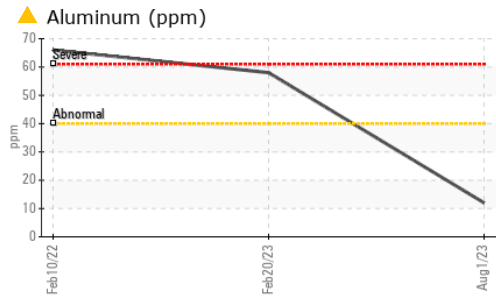
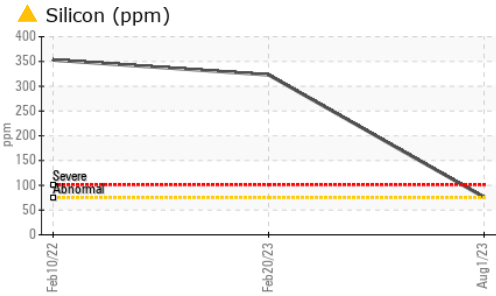
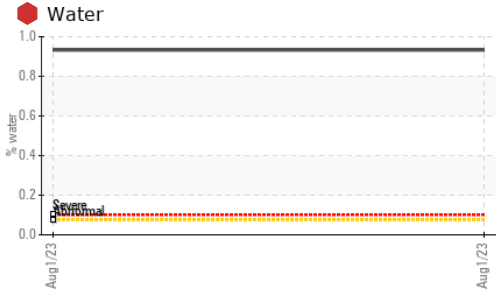
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >75	<b>76</b>	323	353
Sodium	ppm	ASTM D5185m >51	<b>4</b>	9	8
Potassium	ppm	ASTM D5185m >20	<b>6</b>	21	23
Water	%	ASTM D6304 >0.075	<b>0.933</b>	---	---
ppm Water	ppm	ASTM D6304 >750	<b>9330</b>	---	---

### VISUAL

	method	limit/base	current	history1	history2
White Metal	scalar	*Visual NONE	<b>NONE</b>	NONE	MODER
Yellow Metal	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual NORML	<b>MILKY</b>	NORML	NORML
Odor	scalar	*Visual NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual >0.075	<b>0.2%</b>	NEG	NEG
Free Water	scalar	*Visual	<b>NEG</b>	NEG	NEG



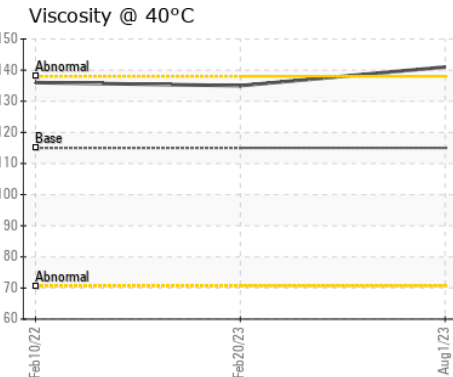
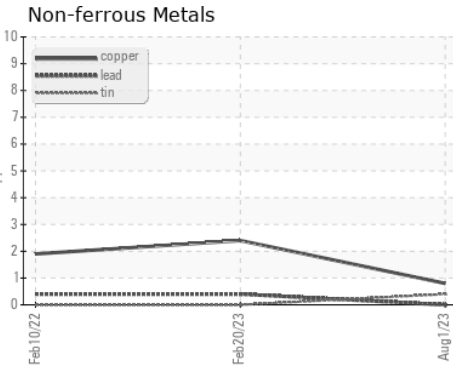
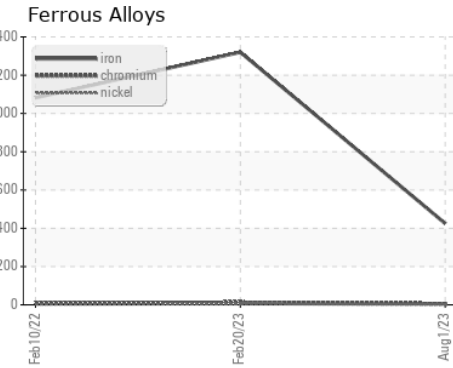
# OIL ANALYSIS REPORT



FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	115	<b>141</b>	135	136

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

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0802440      **Received** : 18 Aug 2023  
**Lab Number** : **05928978**      **Diagnosed** : 22 Aug 2023  
**Unique Number** : 10608925      **Diagnostician** : Don Baldrige  
**Test Package** : CONST ( Additional Tests: KF )

**MANHATTAN ROAD AND BRIDGE**  
 5601 S 122ND E AVE  
 TULSA, OK  
 US 74146  
 Contact: BEN CALDWELL  
 kevin.marson@wearcheck.com  
 T: (918)728-5749  
 F:

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)