

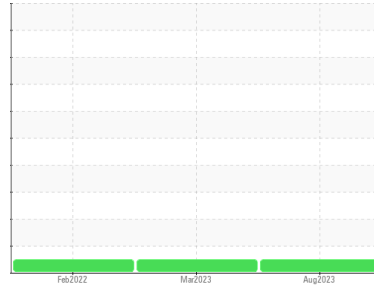


# OIL ANALYSIS REPORT



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

## Sample Rating Trend



**NORMAL**



### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### 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>WC0802439</b>	WC0754823	WC0619422
Sample Date	Client Info		<b>01 Aug 2023</b>	06 Mar 2023	10 Feb 2022
Machine Age	hrs	Client Info	<b>3625</b>	2577	2577
Oil Age	hrs	Client Info	<b>1048</b>	528	500
Oil Changed	Client Info		<b>Not Chngd</b>	Not Chngd	N/A
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

### WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >23	<b>6</b>	4	3
Chromium	ppm	ASTM D5185m >9	<b>7</b>	6	4
Nickel	ppm	ASTM D5185m >5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >9	<b>3</b>	2	2
Lead	ppm	ASTM D5185m >28	<b>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m >51	<b>10</b>	8	6
Tin	ppm	ASTM D5185m >5	<b>0</b>	0	<1
Antimony	ppm	ASTM D5185m	<b>---</b>	---	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 85	<b>18</b>	16	21
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>&lt;1</b>	<1	<1
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m 350	<b>124</b>	108	128
Calcium	ppm	ASTM D5185m 1800	<b>326</b>	282	327
Phosphorus	ppm	ASTM D5185m 1000	<b>678</b>	609	690
Zinc	ppm	ASTM D5185m 1100	<b>931</b>	772	925
Sulfur	ppm	ASTM D5185m 3500	<b>2227</b>	2025	1836

### CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >31	<b>6</b>	6	5
Sodium	ppm	ASTM D5185m >21	<b>0</b>	2	1
Potassium	ppm	ASTM D5185m >20	<b>2</b>	<1	2

### FLUID CLEANLINESS

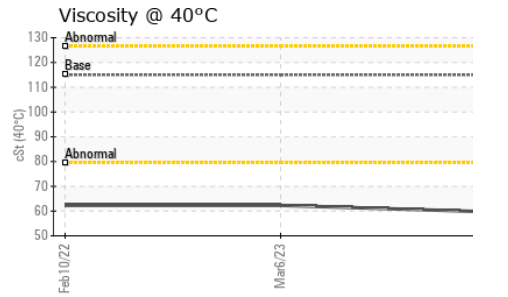
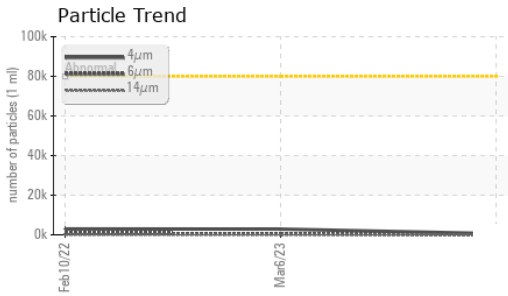
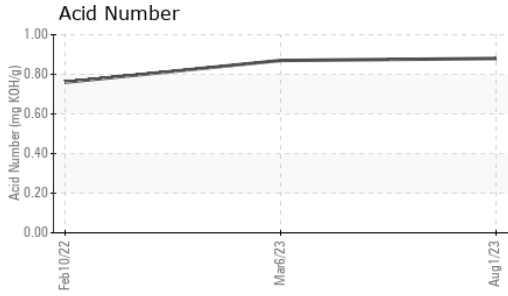
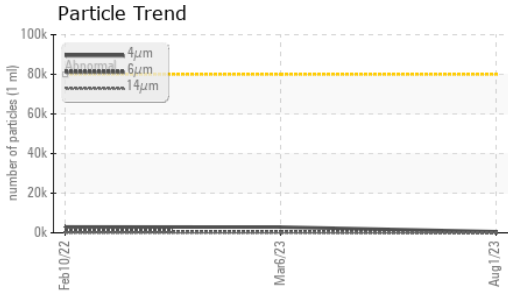
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>80000	<b>583</b>	2906	2991
Particles >6µm	ASTM D7647	>20000	<b>120</b>	555	622
Particles >14µm	ASTM D7647	>640	<b>14</b>	47	55
Particles >21µm	ASTM D7647	>160	<b>4</b>	10	12
Particles >38µm	ASTM D7647	>40	<b>0</b>	0	1
Particles >71µm	ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>23/21/16	<b>16/14/11</b>	19/16/13	19/16/13

### FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.88</b>	0.87	0.76



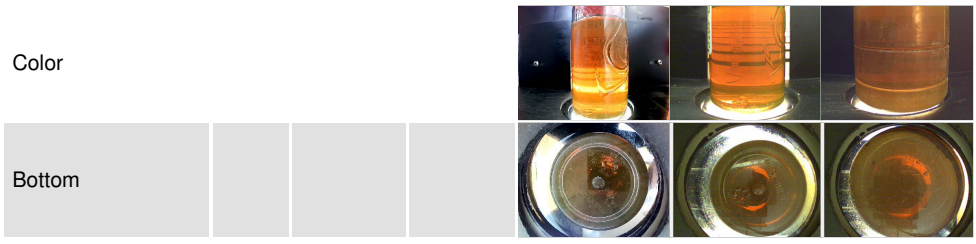
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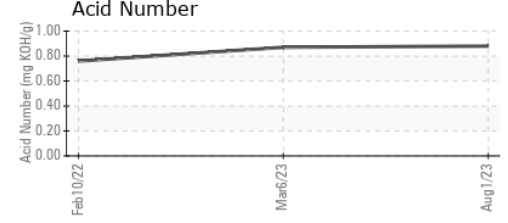
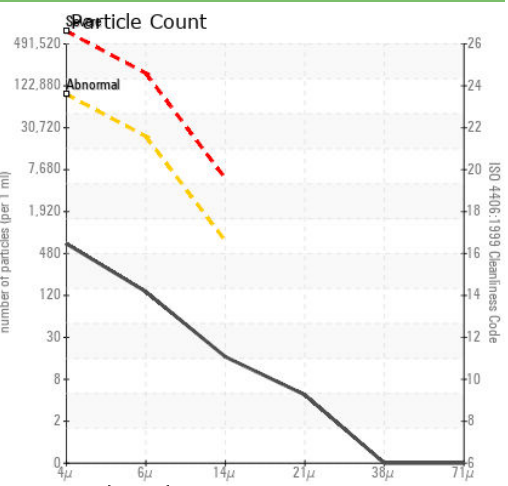
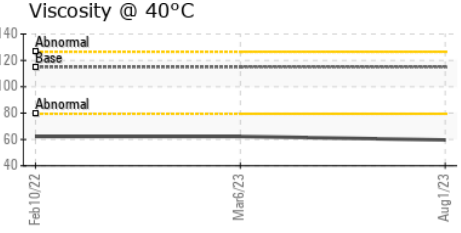
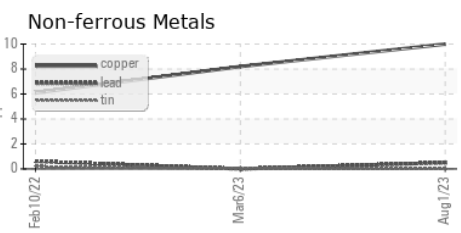
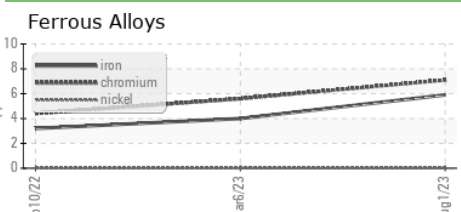
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.075	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 115	59.6	62.3	62.3

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0802439 **Received** : 18 Aug 2023  
**Lab Number** : 05928753 **Diagnosed** : 22 Aug 2023  
**Unique Number** : 10608700 **Diagnostician** : Don Baldrige  
**Test Package** : CONST

**MANHATTAN ROAD AND BRIDGE**  
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 TULSA, OK  
 US 74146  
 Contact: BEN CALDWELL  
 kevin.marson@wearcheck.com  
 T: (918)728-5749  
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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)