

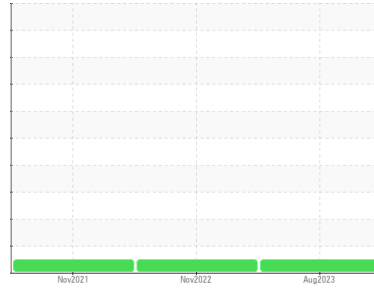


# OIL ANALYSIS REPORT



Area  
**[18084]**  
 Machine Id  
**30-96L**  
 Component  
**Diesel Engine**  
 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.

#### Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0802434</b>	WC0754801	WC0601378
Sample Date	Client Info		<b>04 Aug 2023</b>	09 Nov 2022	17 Nov 2021
Machine Age	hrs	Client Info	<b>2466</b>	1869	1653
Oil Age	hrs	Client Info	<b>597</b>	216	250
Oil Changed	Client Info		<b>Changed</b>	Changed	Not Changed
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

### CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Glycol	WC Method		<b>NEG</b>	NEG	NEG

### WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>51	<b>12</b>	12	9
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>1</b>	2	2
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>2</b>	3	4
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	<1	1
Copper	ppm	ASTM D5185m	>26	<b>1</b>	3	2
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	0
Antimony	ppm	ASTM D5185m		<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

### ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	85	<b>82</b>	219	234
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>29</b>	208	234
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	350	<b>540</b>	822	970
Calcium	ppm	ASTM D5185m	1800	<b>1706</b>	1434	1696
Phosphorus	ppm	ASTM D5185m	1000	<b>1048</b>	898	972
Zinc	ppm	ASTM D5185m	1100	<b>1247</b>	1070	1090
Sulfur	ppm	ASTM D5185m	3500	<b>4386</b>	3600	3449

### CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>22	<b>4</b>	6	6
Sodium	ppm	ASTM D5185m	>31	<b>4</b>	3	3
Potassium	ppm	ASTM D5185m	>20	<b>3</b>	2	2

### INFRA-RED

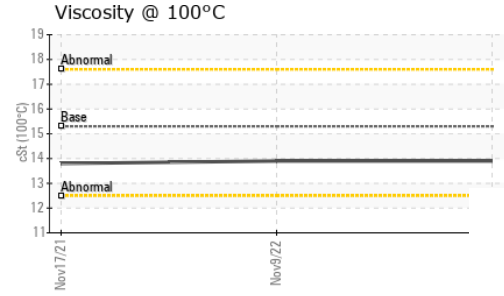
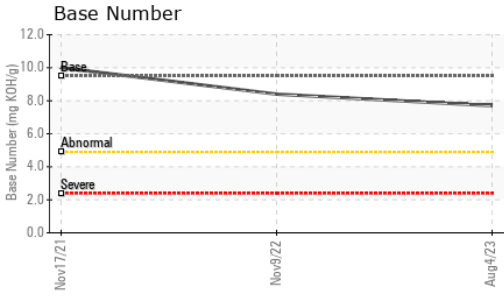
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.1</b>	9.0	7.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>18.5</b>	21.5	21

### FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>12.8</b>	16.1	15.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.5	<b>7.7</b>	8.4	10



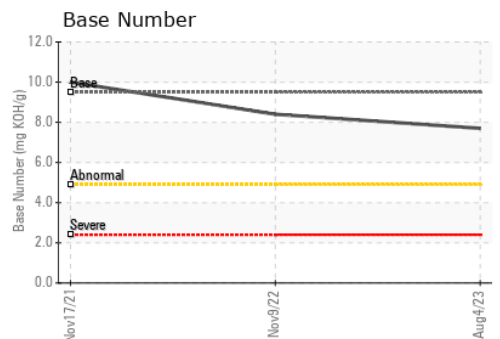
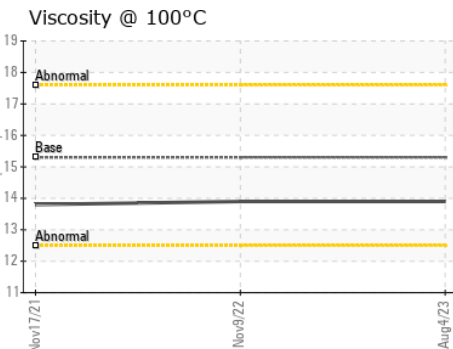
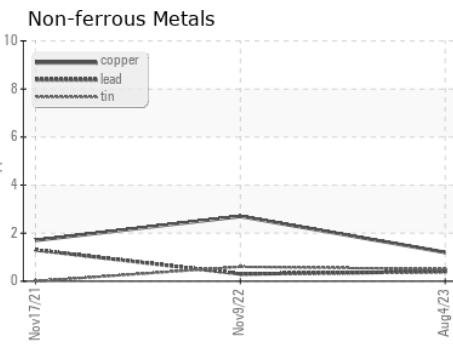
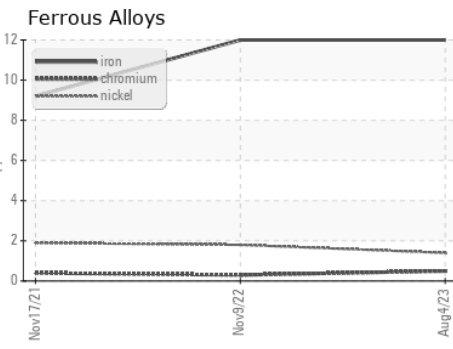
# OIL ANALYSIS REPORT



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	>0.21	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.3	<b>13.9</b>	13.9	13.8

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0802434 **Received** : 18 Aug 2023  
**Lab Number** : 05928697 **Diagnosed** : 21 Aug 2023  
**Unique Number** : 10608644 **Diagnostician** : Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**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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Certificate L2367  
 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)