

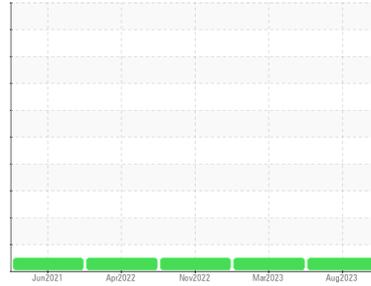


OIL ANALYSIS REPORT



Area
[18674]
 Machine Id
53-01
 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		WC0818657	WC0754827	WC0619401
Sample Date	Client Info		03 Aug 2023	06 Mar 2023	28 Nov 2022
Machine Age	hrs	Client Info	5603	5385	4920
Oil Age	hrs	Client Info	218	465	4920
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

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

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>51	9	9	18
Chromium	ppm	ASTM D5185m	>11	<1	0	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	<1	0	1
Aluminum	ppm	ASTM D5185m	>31	3	2	2
Lead	ppm	ASTM D5185m	>26	<1	0	<1
Copper	ppm	ASTM D5185m	>26	<1	0	<1
Tin	ppm	ASTM D5185m	>4	<1	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	85	77	60	32
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		57	39	35
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	350	308	418	860
Calcium	ppm	ASTM D5185m	1800	1943	1684	1218
Phosphorus	ppm	ASTM D5185m	1000	1063	979	1085
Zinc	ppm	ASTM D5185m	1100	1269	1160	1240
Sulfur	ppm	ASTM D5185m	3500	4540	3773	4292

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>22	4	4	4
Sodium	ppm	ASTM D5185m	>31	12	13	31
Potassium	ppm	ASTM D5185m	>20	7	5	7

INFRA-RED

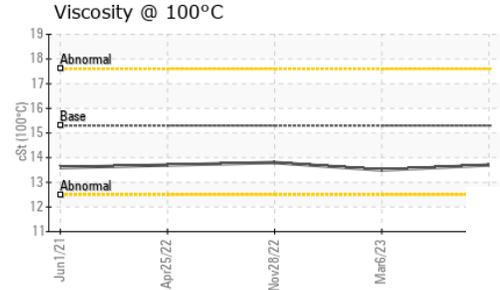
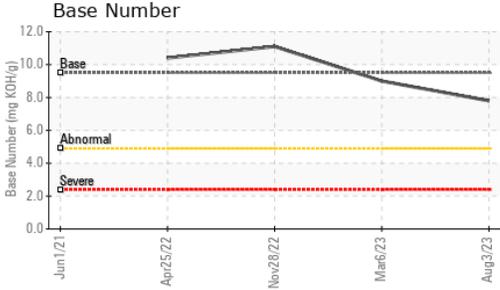
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	7.0	6.9	6.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.2	17.7	19.4

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	12.0	12.0	13.5
Base Number (BN)	mg KOH/g	ASTM D2896	9.5	7.8	9.0	11.1



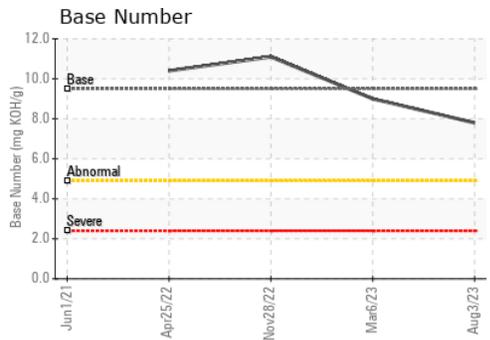
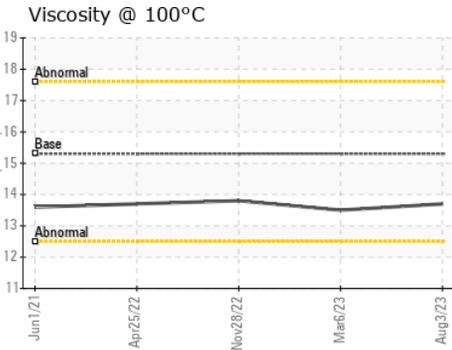
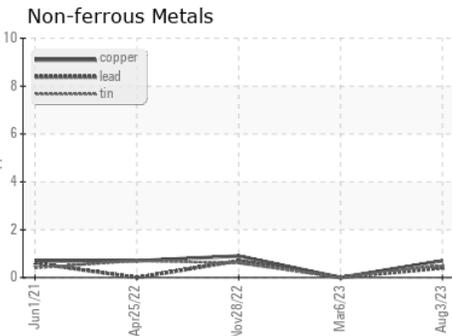
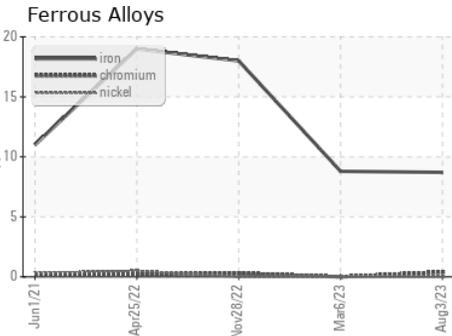
OIL ANALYSIS REPORT



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	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.3	13.7	13.5	13.8

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0818657 **Received** : 18 Aug 2023
Lab Number : **05928702** **Diagnosed** : 21 Aug 2023
Unique Number : 10608649 **Diagnostician** : Wes Davis
Test Package : CONST (Additional Tests: TBN)

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 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)