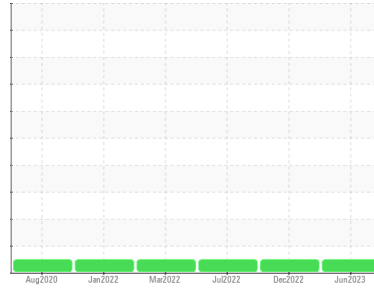


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
31
 Component
Diesel Engine
 Fluid
PHILLIPS 66 Fleet Supreme EC 15W40 (--- GAL)

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	PCA0096641	PCA0088226	PCA0076806	
Sample Date	Client Info	27 Jun 2023	14 Dec 2022	21 Jul 2022	
Machine Age	mls	Client Info	622034	601760	580430
Oil Age	mls	Client Info	20274	20779	20024
Oil Changed	Client Info	Changed	Changed	Changed	
Sample Status		NORMAL	NORMAL	NORMAL	

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >3.0	<1.0	<1.0	<1.0
Glycol	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >165	19	14	14
Chromium	ppm ASTM D5185m >5	<1	1	1
Nickel	ppm ASTM D5185m >4	0	<1	0
Titanium	ppm ASTM D5185m >2	<1	<1	1
Silver	ppm ASTM D5185m >2	0	0	<1
Aluminum	ppm ASTM D5185m >20	1	0	2
Lead	ppm ASTM D5185m >150	<1	2	<1
Copper	ppm ASTM D5185m >90	<1	<1	1
Tin	ppm ASTM D5185m >5	0	<1	<1
Vanadium	ppm ASTM D5185m	<1	0	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	2	7	14
Barium	ppm ASTM D5185m	0	<1	0
Molybdenum	ppm ASTM D5185m	55	56	53
Manganese	ppm ASTM D5185m	<1	<1	<1
Magnesium	ppm ASTM D5185m	864	936	821
Calcium	ppm ASTM D5185m	1157	1289	1188
Phosphorus	ppm ASTM D5185m 1116	993	1055	1006
Zinc	ppm ASTM D5185m 1250	1204	1270	1218
Sulfur	ppm ASTM D5185m	3473	3611	3155

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >35	4	5	5
Sodium	ppm ASTM D5185m	3	2	2
Potassium	ppm ASTM D5185m >20	0	0	0

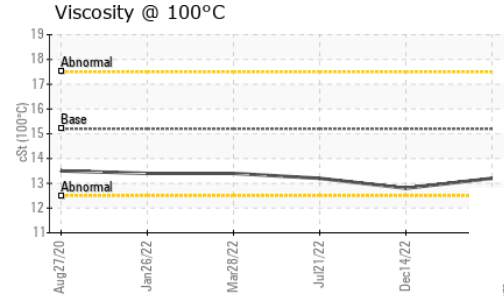
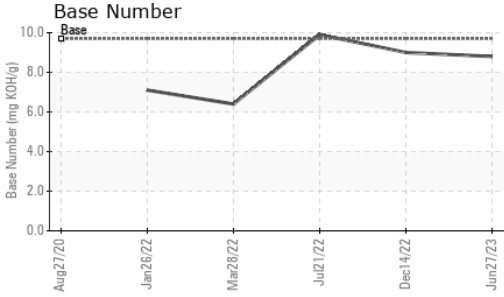
INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >7.5	0.5	0.6	0.5
Nitration	Abs/cm *ASTM D7624 >20	8.6	9.6	8.7
Sulfation	Abs/.1mm *ASTM D7415 >30	19.0	20.8	20.7

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	14.9	16.2	15.1
Base Number (BN)	mg KOH/g ASTM D2896 9.7	8.8	9.0	9.9

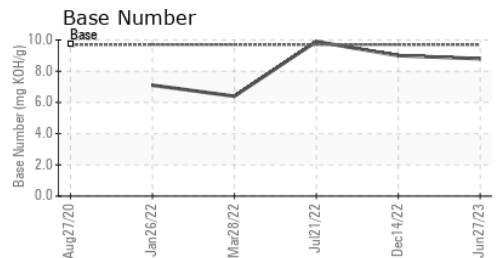
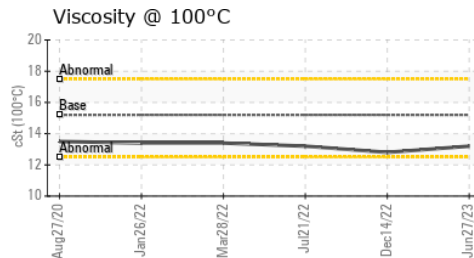
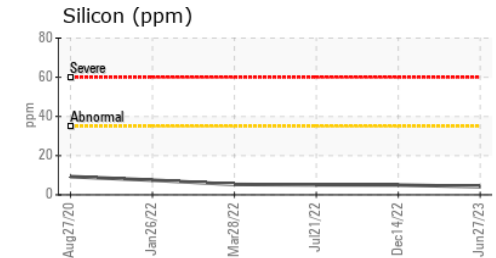
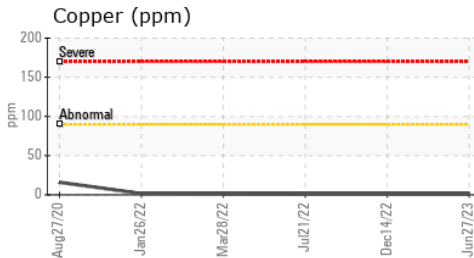
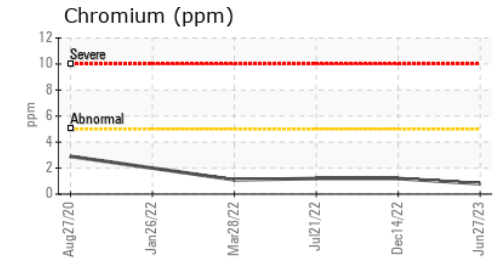
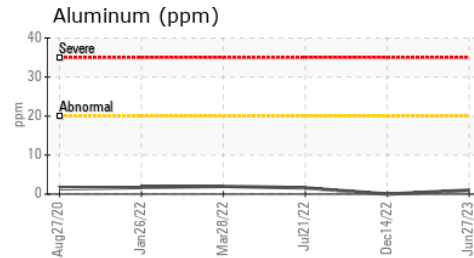
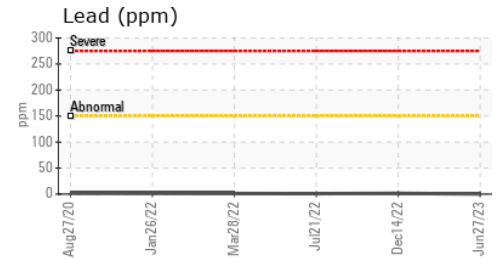
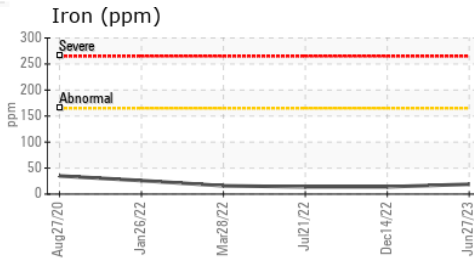
OIL ANALYSIS REPORT



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	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.2	13.2	12.8	13.2

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0096641 **Received** : 19 Jul 2023
Lab Number : 05902054 **Diagnosed** : 20 Jul 2023
Unique Number : 10563410 **Diagnostician** : Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

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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)