



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
L-441
Component
Diesel Engine
Fluid
PHILLIPS 66 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0878699	WC0828511	WC0828460
Sample Date		Client Info		05 Dec 2023	23 Oct 2023	30 Aug 2023
Machine Age	hrs	Client Info		2036	1738	1419
Oil Age	hrs	Client Info		298	319	298
Filter Age	hrs	Client Info		298	319	298
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	3	6	6
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	3	4
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	<1	<1	2
Tin	ppm	ASTM D5185m	>15	0	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

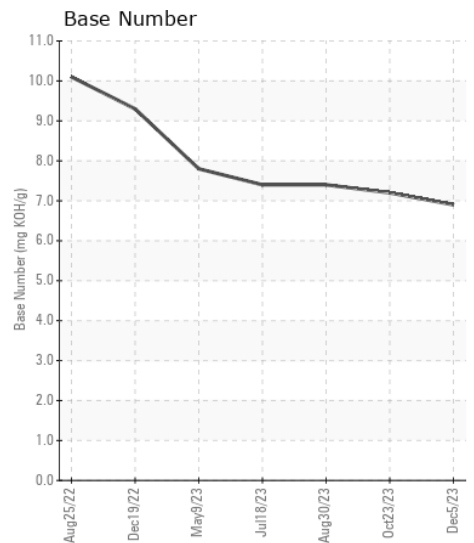
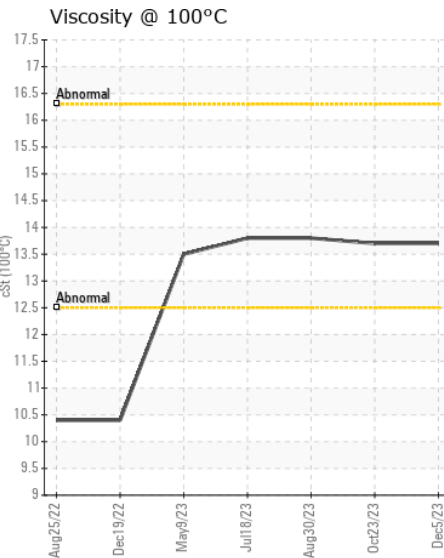
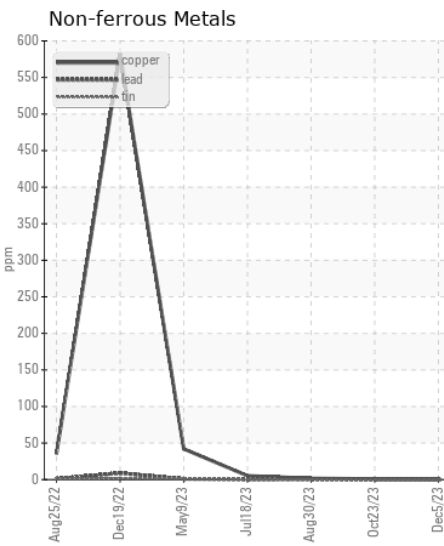
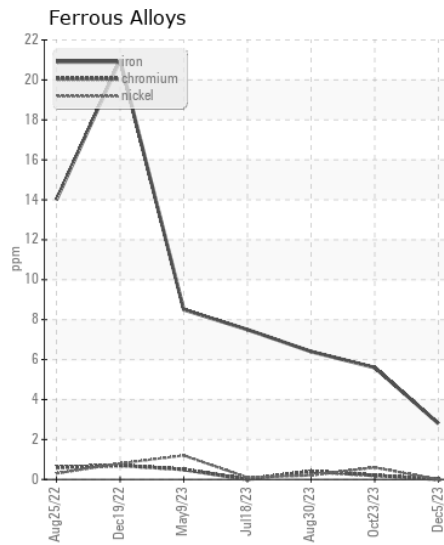
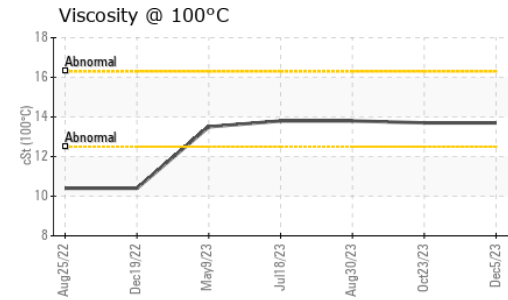
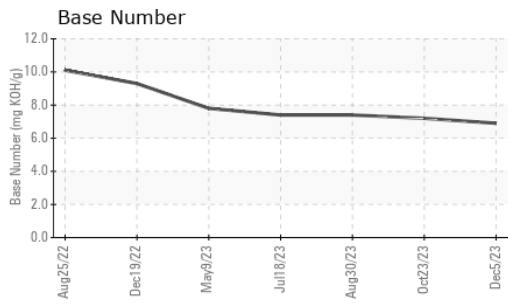
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	4	4
Potassium	ppm	ASTM D5185m	>20	0	2	2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.6	8.6	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.6	18.1	17.6
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

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.

Sodium	ppm	ASTM D5185m		<1	<1	2
Boron	ppm	ASTM D5185m		74	67	67
Barium	ppm	ASTM D5185m		0	3	0
Molybdenum	ppm	ASTM D5185m		86	92	87
Manganese	ppm	ASTM D5185m		0	0	1
Magnesium	ppm	ASTM D5185m		35	60	79
Calcium	ppm	ASTM D5185m		2098	2198	2380
Phosphorus	ppm	ASTM D5185m		915	1134	1113
Zinc	ppm	ASTM D5185m		1220	1239	1392
Sulfur	ppm	ASTM D5185m		4246	4186	5084
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.8	13.8	13.1
Base Number (BN)	mg KOH/g	ASTM D2896		6.9	7.2	7.4
Visc @ 100°C	cSt	ASTM D445		13.7	13.7	13.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0878699 **Received** : 11 Dec 2023
Lab Number : 06030289 **Diagnosed** : 12 Dec 2023
Unique Number : 10780080 **Diagnostician** : Wes Davis
Test Package : CONST (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)