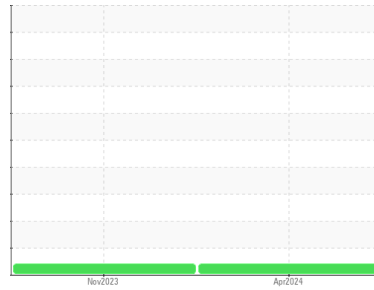




OIL ANALYSIS REPORT

Area
KANSAS/88/EG - EXCAVATOR
 Machine Id
20.528L [KANSAS^88^EG - EXCAVATOR]
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

Sample Rating Trend



VISCOSITY



DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0886864	WC0833915	---
Sample Date	Client Info		08 Apr 2024	14 Nov 2023	---
Machine Age	hrs	Client Info	1366	1086	---
Oil Age	hrs	Client Info	366	1086	---
Oil Changed	Client Info		Changed	Not Changd	---
Sample Status			ATTENTION	ATTENTION	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	NEG	NEG	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	7	2	---
Chromium	ppm	ASTM D5185m >20	0	0	---
Nickel	ppm	ASTM D5185m >2	0	0	---
Titanium	ppm	ASTM D5185m >2	0	0	---
Silver	ppm	ASTM D5185m >2	0	0	---
Aluminum	ppm	ASTM D5185m >25	1	<1	---
Lead	ppm	ASTM D5185m >40	1	0	---
Copper	ppm	ASTM D5185m >330	5	1	---
Tin	ppm	ASTM D5185m >15	<1	<1	---
Vanadium	ppm	ASTM D5185m	<1	<1	---
Cadmium	ppm	ASTM D5185m	0	0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 250	61	60	---
Barium	ppm	ASTM D5185m 10	0	0	---
Molybdenum	ppm	ASTM D5185m 100	36	38	---
Manganese	ppm	ASTM D5185m	<1	0	---
Magnesium	ppm	ASTM D5185m 450	481	497	---
Calcium	ppm	ASTM D5185m 3000	1681	1744	---
Phosphorus	ppm	ASTM D5185m 1150	879	964	---
Zinc	ppm	ASTM D5185m 1350	992	1132	---
Sulfur	ppm	ASTM D5185m 4250	3168	2987	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	5	5	---
Sodium	ppm	ASTM D5185m >158	5	2	---
Potassium	ppm	ASTM D5185m >20	22	0	---
Fuel	%	ASTM D3524 >5	<1.0	0.3	---
Glycol	%	*ASTM D2982	NEG	NEG	---

INFRA-RED

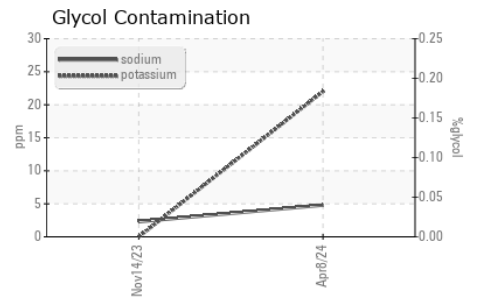
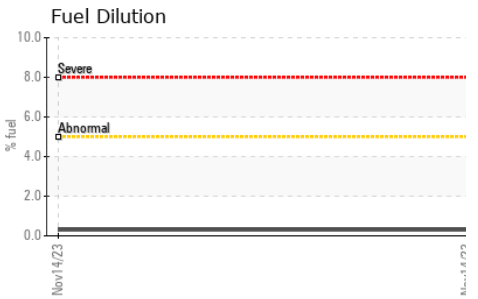
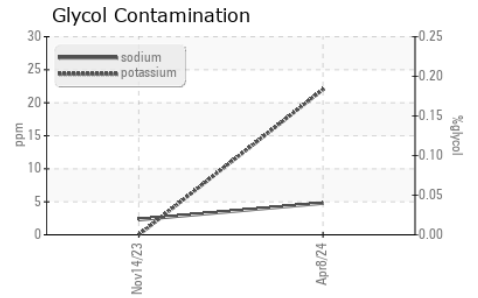
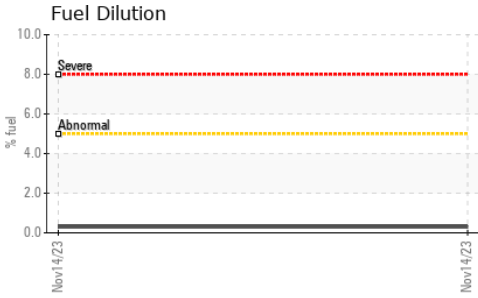
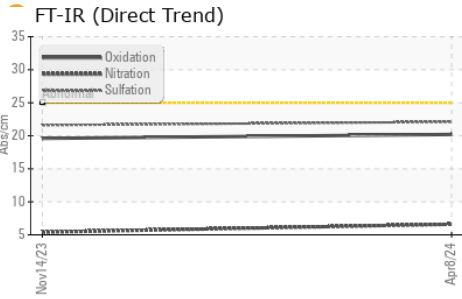
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.2	0.1	---
Nitration	Abs/cm	*ASTM D7624 >20	6.6	5.4	---
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.1	21.6	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	20.2	19.6	---
Base Number (BN)	mg KOH/g	ASTM D2896 8.5	10.1	10.6	---



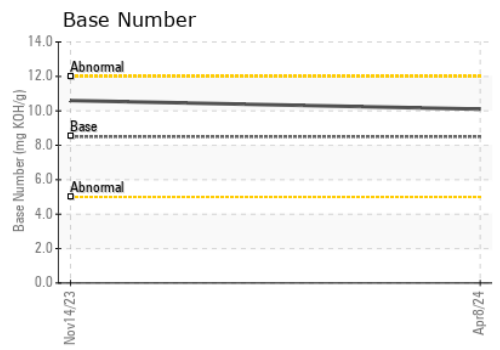
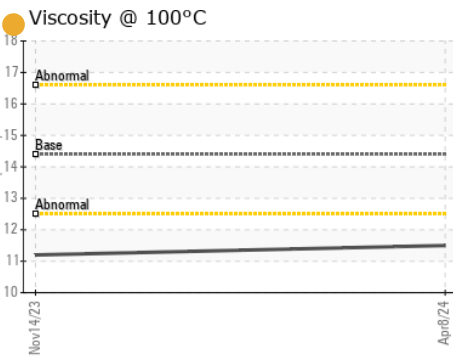
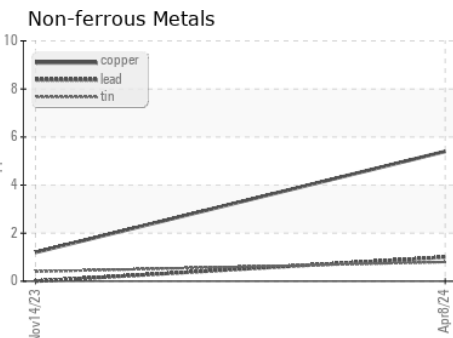
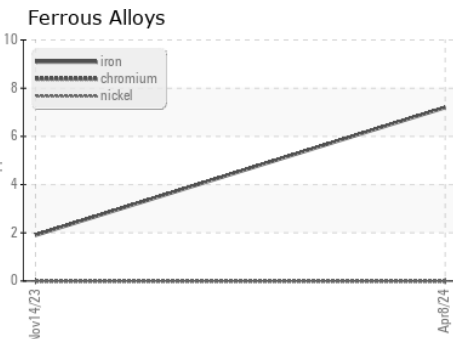
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	● 11.5	● 11.2

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0886864 **Received** : 16 Apr 2024
Lab Number : **06150894** **Tested** : 19 Apr 2024
Unique Number : 10980972 **Diagnosed** : 19 Apr 2024 - Don Baldrige
Test Package : CONST (Additional Tests: FuelDilution, Glycol, TBN)

SHERWOOD CONSTRUCTION CO INC
 3219 WEST MAY ST
 WICHITA, KS
 US 67213
 Contact: BILL ORCUTT
 william.orcutt@wildcat.net

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)