



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
SHUTTLELIFT 5540F CD1538 (S/N 321538)
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL 10W40 (--- GAL)

RECOMMENDATION

The oil is near the end of it's useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		HPL0005095	HPL0002344	---
Sample Date		Client Info		17 May 2024	17 Apr 2023	---
Machine Age	hrs	Client Info		3149	2696	---
Oil Age	hrs	Client Info		0	582	---
Filter Age	hrs	Client Info		0	582	---
Oil Changed		Client Info		N/A	Changed	---
Filter Changed		Client Info		N/A	Changed	---
Sample Status				ABNORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	53	6	---
Chromium	ppm	ASTM D5185m	>20	18	<1	---
Nickel	ppm	ASTM D5185m	>4	<1	0	---
Titanium	ppm	ASTM D5185m		2	0	---
Silver	ppm	ASTM D5185m	>3	<1	0	---
Aluminum	ppm	ASTM D5185m	>20	11	0	---
Lead	ppm	ASTM D5185m	>40	7	<1	---
Copper	ppm	ASTM D5185m	>330	2	<1	---
Tin	ppm	ASTM D5185m	>15	2	0	---
Vanadium	ppm	ASTM D5185m		<1	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

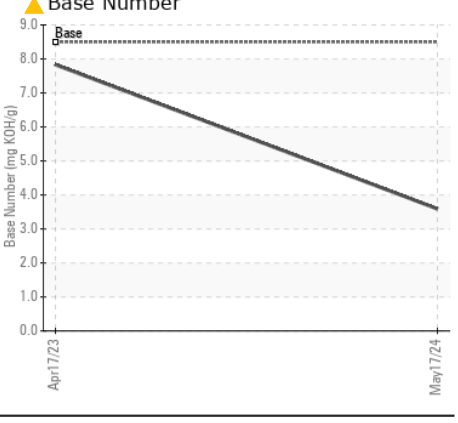
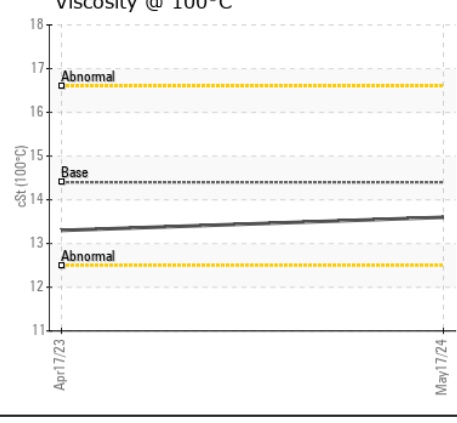
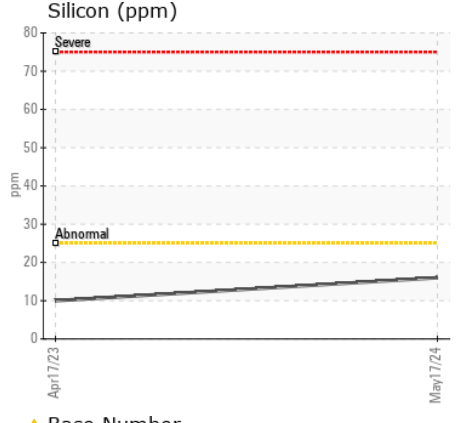
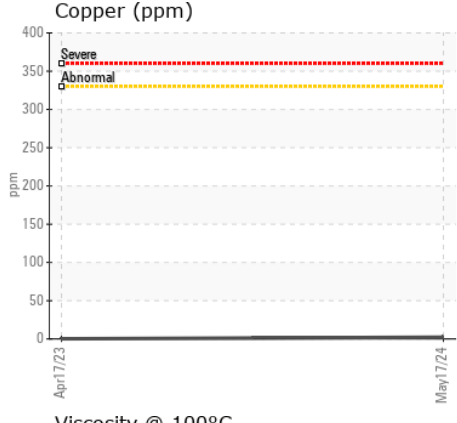
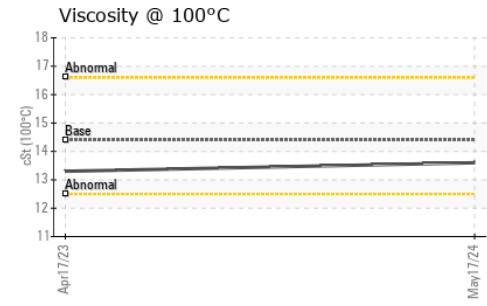
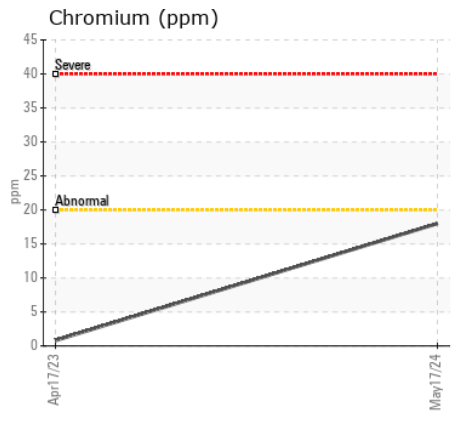
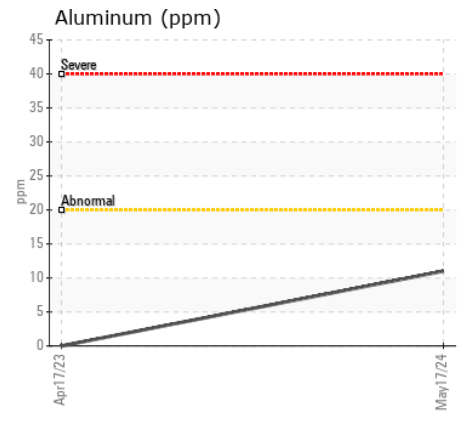
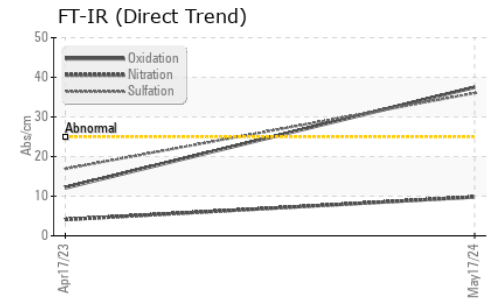
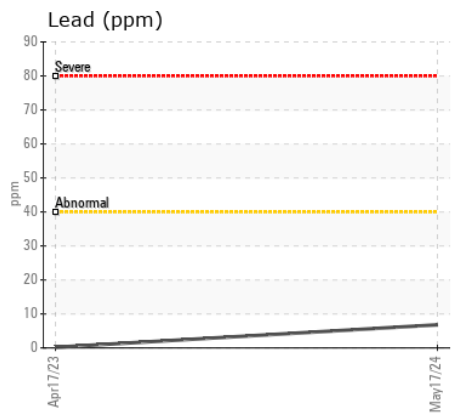
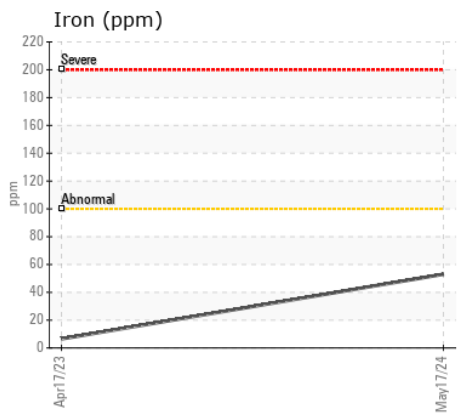
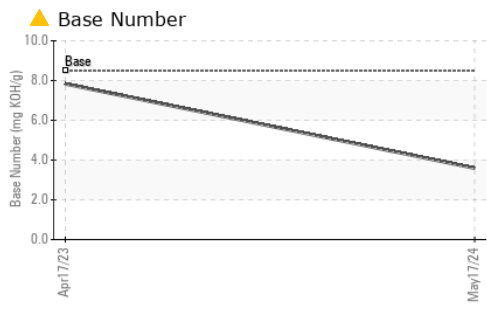
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	16	10	---
Potassium	ppm	ASTM D5185m	>20	<1	2	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.4	0.1	---
Nitration	Abs/cm	*ASTM D7624	>20	9.8	4.1	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	36.0	16.9	---
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	---

FLUID CONDITION

The BN level is low.

Sodium	ppm	ASTM D5185m		2	<1	---
Boron	ppm	ASTM D5185m	250	38	525	---
Barium	ppm	ASTM D5185m	10	0	0	---
Molybdenum	ppm	ASTM D5185m	100	522	90	---
Manganese	ppm	ASTM D5185m		1	<1	---
Magnesium	ppm	ASTM D5185m	450	908	350	---
Calcium	ppm	ASTM D5185m	3000	2411	1357	---
Phosphorus	ppm	ASTM D5185m	1150	995	996	---
Zinc	ppm	ASTM D5185m	1350	1216	1192	---
Sulfur	ppm	ASTM D5185m	4250	8340	3567	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	37.5	12.1	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	3.59	7.83	---
Visc @ 100°C	cSt	ASTM D445	14.4	13.6	13.3	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : HPL0005095 **Received** : 23 May 2024
Lab Number : 06189472 **Tested** : 24 May 2024
Unique Number : 11046224 **Diagnosed** : 28 May 2024 - Sean Felton
Test Package : MOB 2

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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)