



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
HITACHI E-6
Component
Diesel Engine
Fluid
FLEETLINE SUPERFLEET XHD 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LP0001918	LP0001002	LP0000646
Sample Date		Client Info		03 Mar 2024	25 Jan 2024	17 Oct 2023
Machine Age	hrs	Client Info		12758	12147	11540
Oil Age	hrs	Client Info		333	250	273
Filter Age	hrs	Client Info		333	250	273
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	6	2	5
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	2	2
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	1	<1	5
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

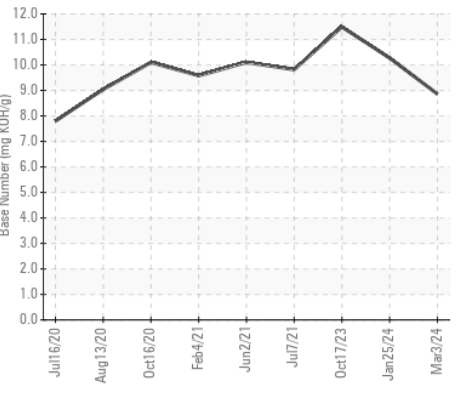
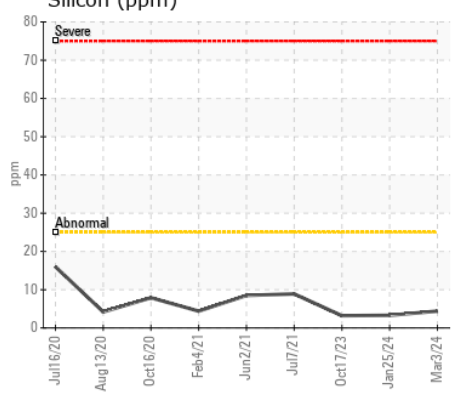
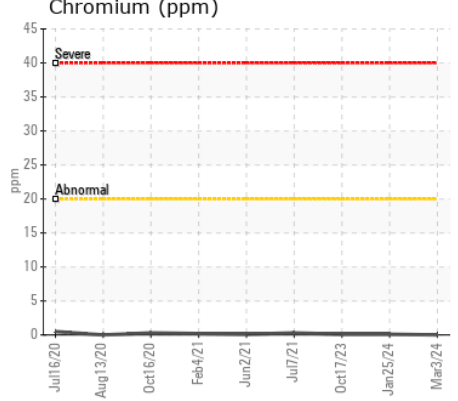
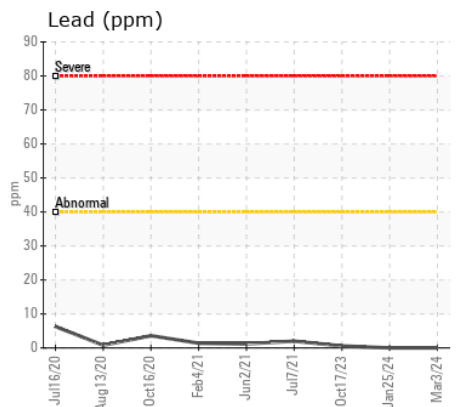
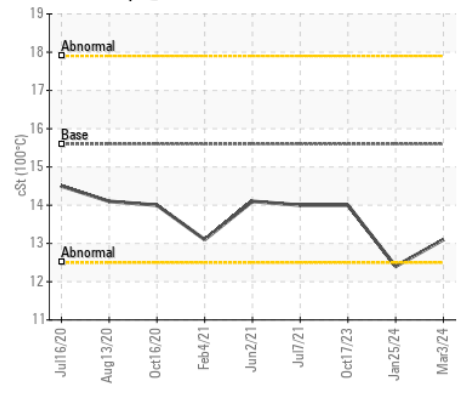
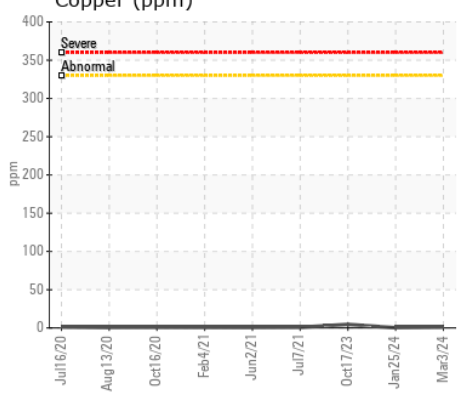
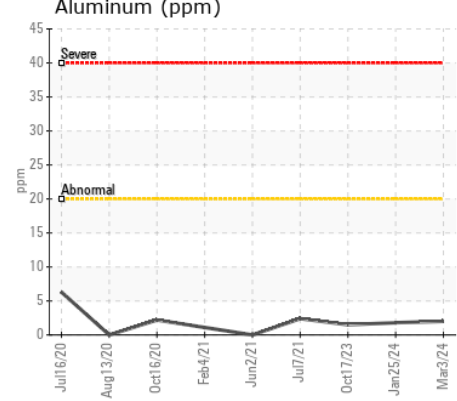
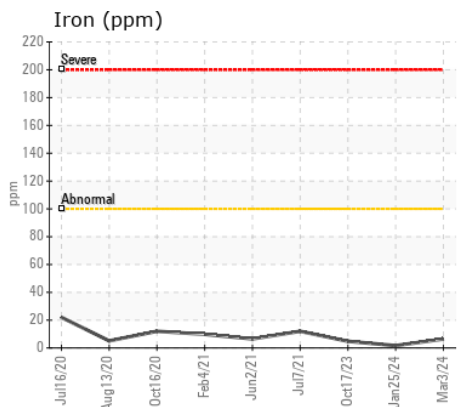
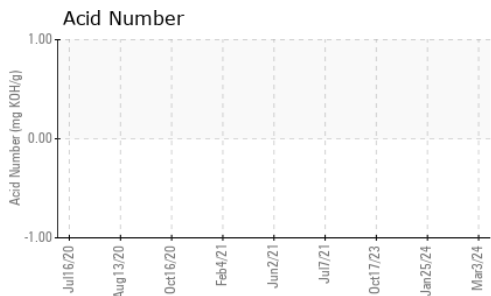
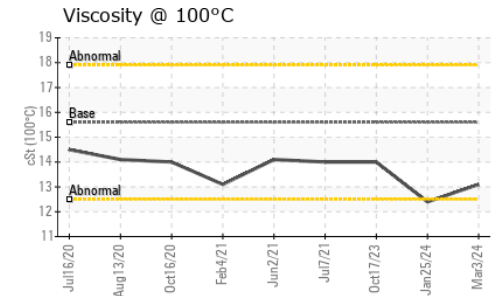
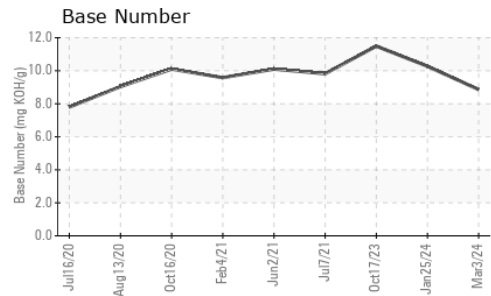
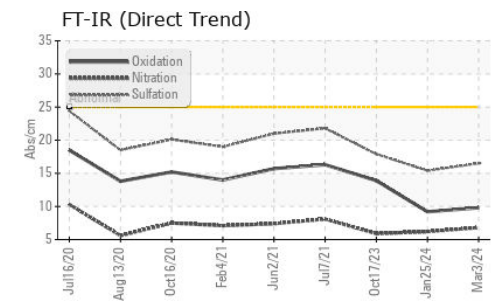
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	3	3
Potassium	ppm	ASTM D5185m	>20	5	0	3
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	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	6.8	6.2	5.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.5	15.4	17.9
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		5	0	4
Boron	ppm	ASTM D5185m		9	7	13
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		8	16	69
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		96	175	978
Calcium	ppm	ASTM D5185m		2206	1915	1176
Phosphorus	ppm	ASTM D5185m		931	800	1109
Zinc	ppm	ASTM D5185m		1060	1048	1338
Sulfur	ppm	ASTM D5185m		4066	3185	3351
Oxidation	Abs/.1mm	*ASTM D7414	>25	9.8	9.2	13.9
Base Number (BN)	mg KOH/g	ASTM D2896		8.86	10.27	11.49
Visc @ 100°C	cSt	ASTM D445	15.6	13.1	12.4	14.0



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LP0001918 **Received** : 17 Jun 2024
Lab Number : 06212568 **Tested** : 19 Jun 2024
Unique Number : 11085432 **Diagnosed** : 19 Jun 2024 - Sean Felton
Test Package : MOB 2 (Additional Tests: TAN Man)

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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)