



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
HYUNDAI LB-53

Component
Diesel Engine

Fluid
FLEETLINE SUPERFLEET XHD 15W40 (12 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LP0000764	LP0000580	LP0000778
Sample Date		Client Info		29 Nov 2023	07 Oct 2023	07 Sep 2023
Machine Age	hrs	Client Info		6697	6460	6273
Oil Age	hrs	Client Info		237	250	131
Filter Age	hrs	Client Info		237	250	131
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	36	33	50
Chromium	ppm	ASTM D5185m	>20	3	4	6
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	17	5	▲ 9
Lead	ppm	ASTM D5185m	>40	14	12	26
Copper	ppm	ASTM D5185m	>330	10	4	5
Tin	ppm	ASTM D5185m	>15	<1	1	2
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

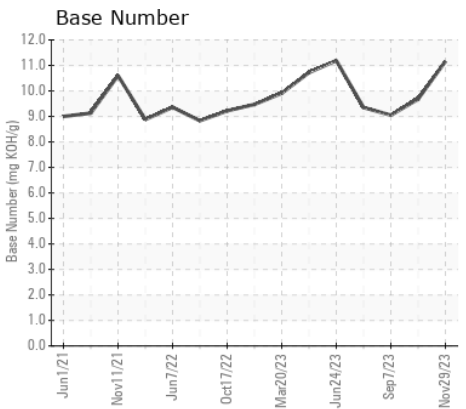
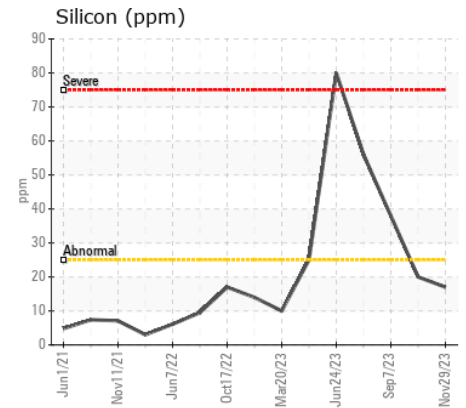
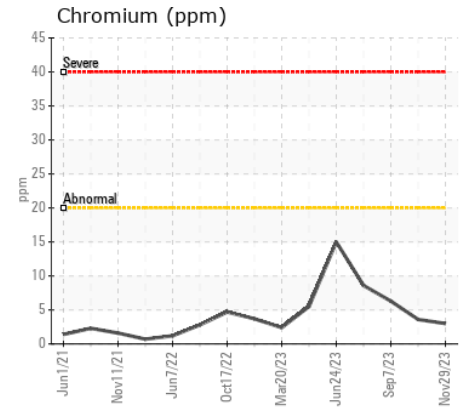
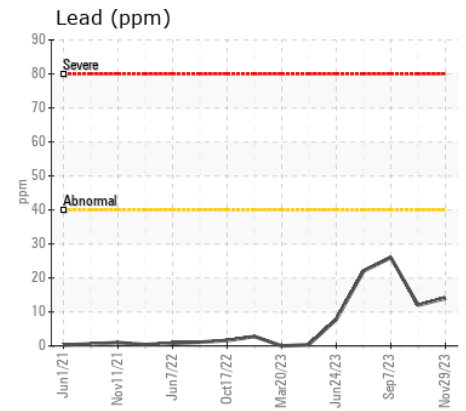
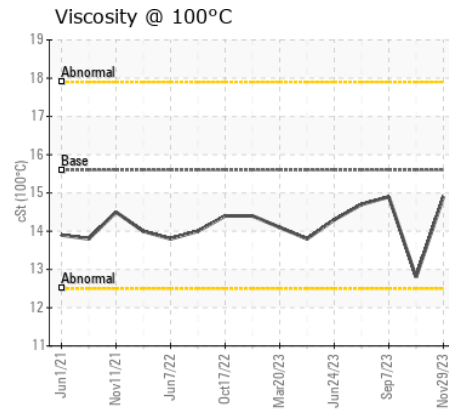
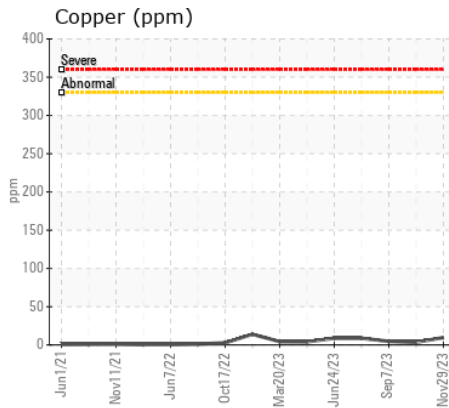
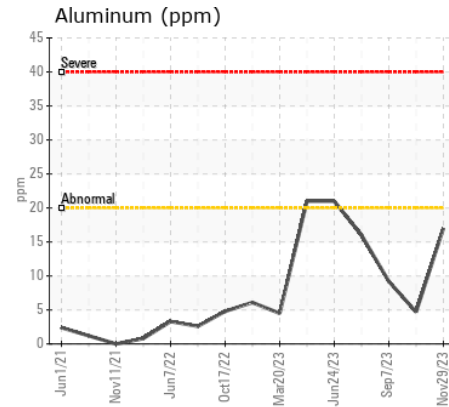
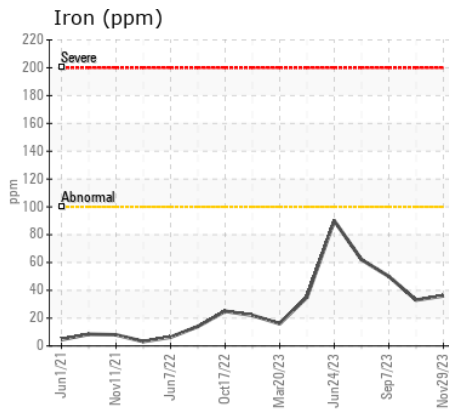
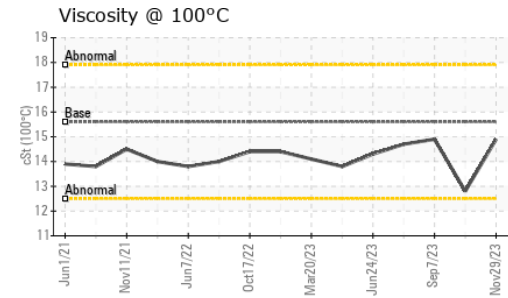
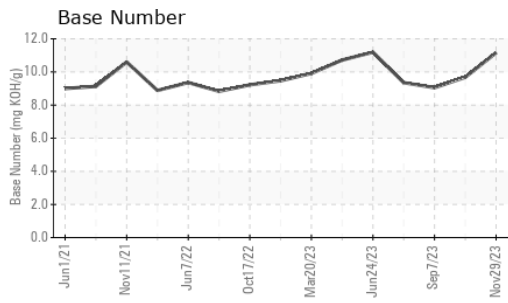
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	17	20	▲ 38
Potassium	ppm	ASTM D5185m	>20	0	<1	6
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	0.2	0.1	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.9	9.0	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.1	21.0	20.9
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		<1	2	4
Boron	ppm	ASTM D5185m		0	16	3
Barium	ppm	ASTM D5185m		0	0	3
Molybdenum	ppm	ASTM D5185m		68	25	68
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m		1067	418	1126
Calcium	ppm	ASTM D5185m		1227	1980	1233
Phosphorus	ppm	ASTM D5185m		1190	1034	1240
Zinc	ppm	ASTM D5185m		1445	1267	1508
Sulfur	ppm	ASTM D5185m		3212	3742	3477
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.1	14.6	17.8
Base Number (BN)	mg KOH/g	ASTM D2896		11.16	9.68	9.05
Visc @ 100°C	cSt	ASTM D445	15.6	14.9	12.8	14.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LP0000764 **Received** : 16 Jan 2024
Lab Number : 06061394 **Diagnosed** : 17 Jan 2024
Unique Number : 10832776 **Diagnostician** : Wes Davis
Test Package : MOB 2

LORUSSO BRISTOL STONE CORP
 611 PLEASANT ST
 WEYMOUTH, MA
 US 02189
 Contact: PAUL MOGAN
 lbstone611@comcast.net
 T: (781)331-5379
 F: (781)337-8274

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)