



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
HYUNDAI LB-53
Component
Diesel Engine
Fluid
PETRO CANADA DURON SHP 15W40 (12 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LP0001383	LP0000765	LP0000764
Sample Date		Client Info		28 Mar 2024	02 Jan 2024	29 Nov 2023
Machine Age	hrs	Client Info		6992	6767	6697
Oil Age	hrs	Client Info		295	70	237
Filter Age	hrs	Client Info		295	70	237
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	16	17	36
Chromium	ppm	ASTM D5185m	>20	1	2	3
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	12	5	17
Lead	ppm	ASTM D5185m	>40	4	2	14
Copper	ppm	ASTM D5185m	>330	5	3	10
Tin	ppm	ASTM D5185m	>15	0	0	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

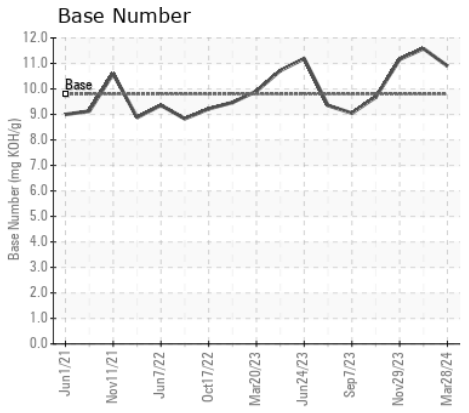
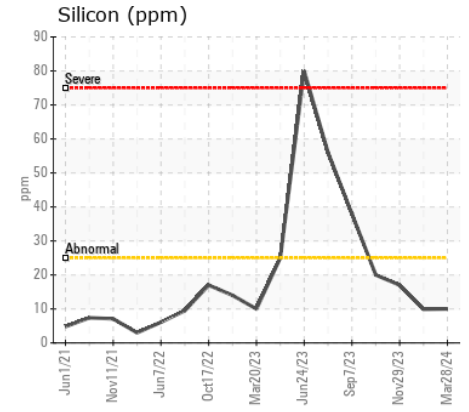
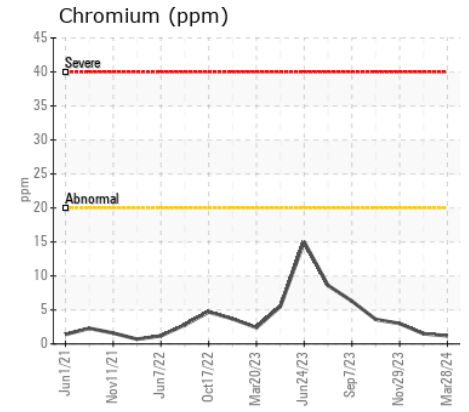
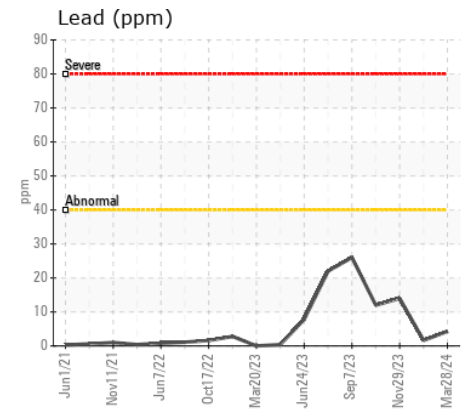
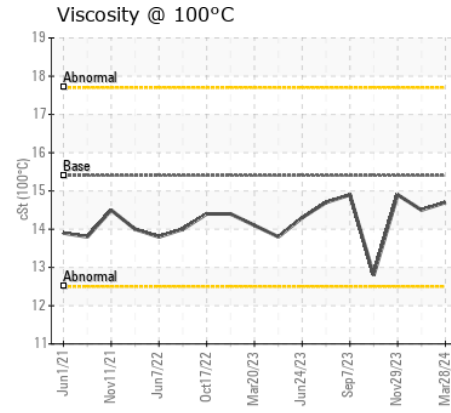
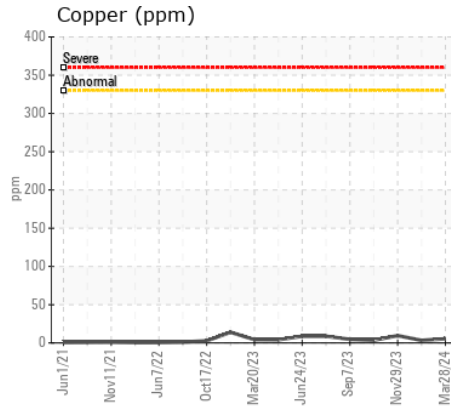
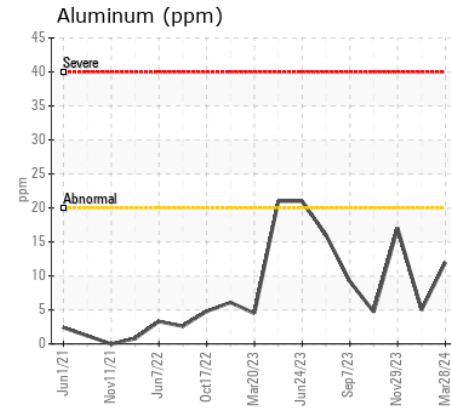
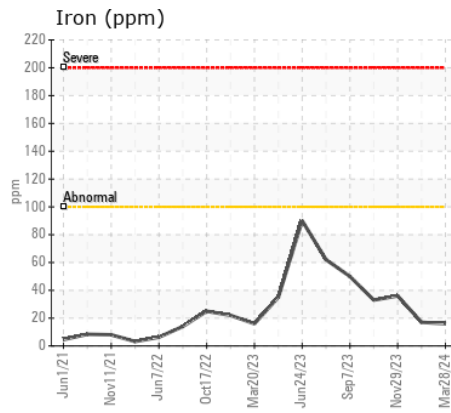
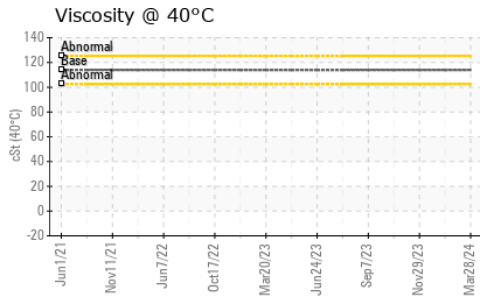
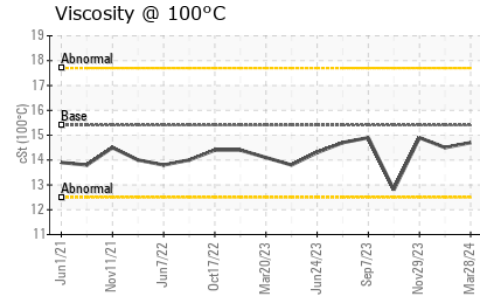
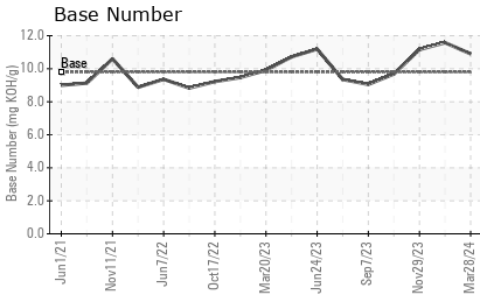
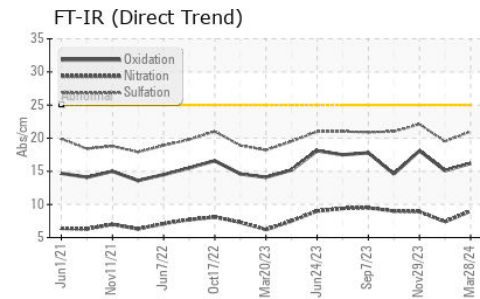
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	10	10	17
Potassium	ppm	ASTM D5185m	>20	4	0	0
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	9.0	7.4	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.0	19.5	22.1
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		4	0	<1
Boron	ppm	ASTM D5185m	0	10	2	0
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	54	60	68
Manganese	ppm	ASTM D5185m	0	1	<1	1
Magnesium	ppm	ASTM D5185m	1010	843	841	1067
Calcium	ppm	ASTM D5185m	1070	1645	1381	1227
Phosphorus	ppm	ASTM D5185m	1150	1173	1115	1190
Zinc	ppm	ASTM D5185m	1270	1410	1342	1445
Sulfur	ppm	ASTM D5185m	2060	4013	3325	3212
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.2	15.1	18.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	10.90	11.58	11.16
Visc @ 100°C	cSt	ASTM D445	15.4	14.7	14.5	14.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LP0001383
Lab Number : 06223641
Unique Number : 11101838
Test Package : MOB 2 (Additional Tests: KV40)

Received : 28 Jun 2024
Tested : 01 Jul 2024
Diagnosed : 01 Jul 2024 - Jonathan Hester

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)