



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
HYUNDAI 27350-010
Component
Gasoline Engine
Fluid
{not provided} (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WCM2308058	---	---
Sample Date		Client Info		16 Jun 2024	---	---
Machine Age	mls	Client Info		0	---	---
Oil Age	mls	Client Info		0	---	---
Filter Age	mls	Client Info		0	---	---
Oil Changed		Client Info		N/A	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				ABNORMAL	---	---

WEAR

Moderate concentration of visible metal present. All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	52	---	---
Chromium	ppm	ASTM D5185m	>20	0	---	---
Nickel	ppm	ASTM D5185m	>5	2	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>2	0	---	---
Aluminum	ppm	ASTM D5185m	>40	29	---	---
Lead	ppm	ASTM D5185m	>50	2	---	---
Copper	ppm	ASTM D5185m	>155	62	---	---
Tin	ppm	ASTM D5185m	>10	7	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	▲ MODER	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---

CONTAMINATION

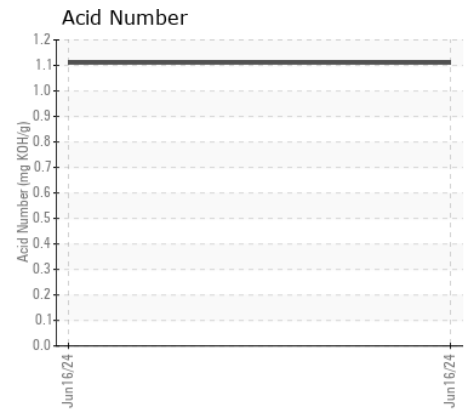
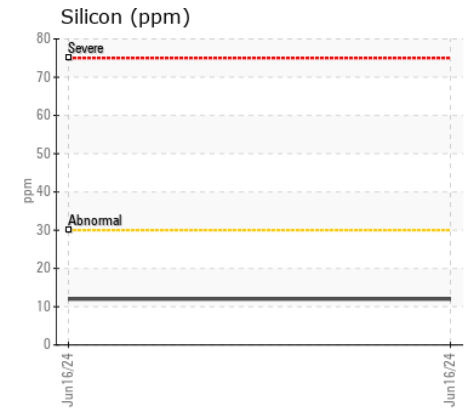
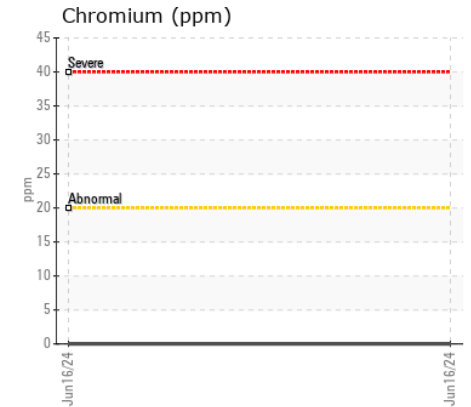
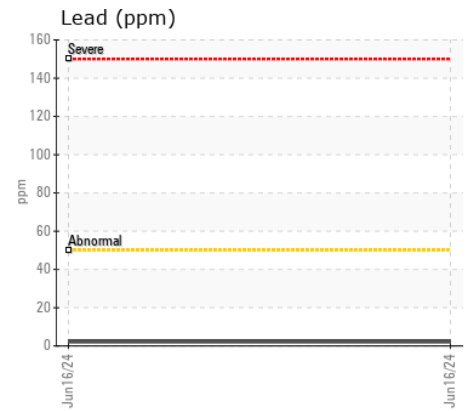
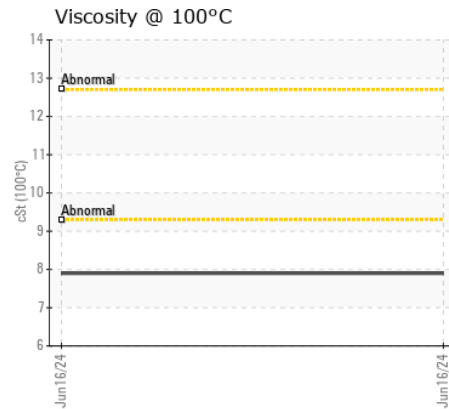
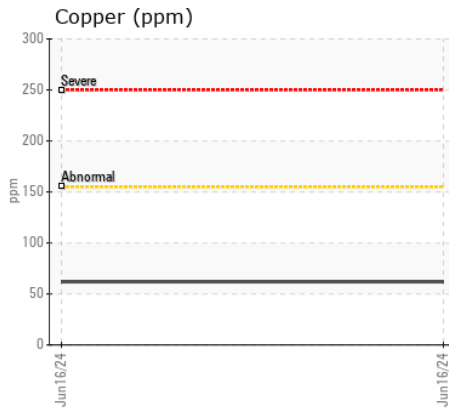
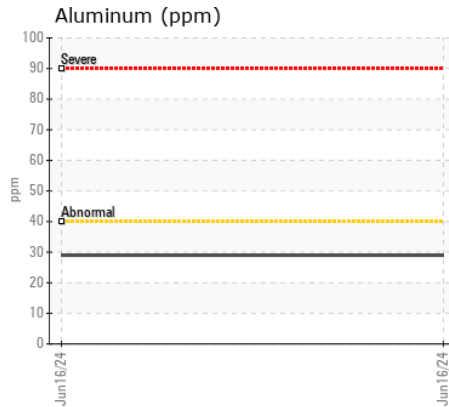
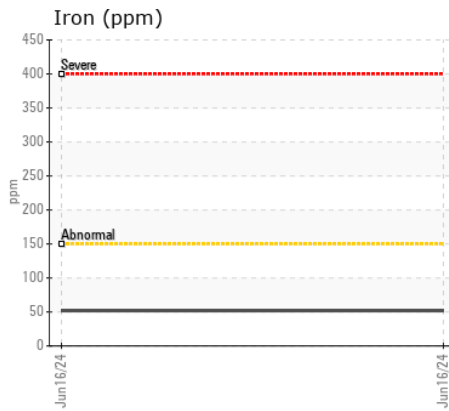
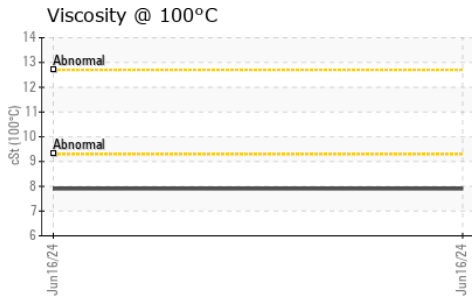
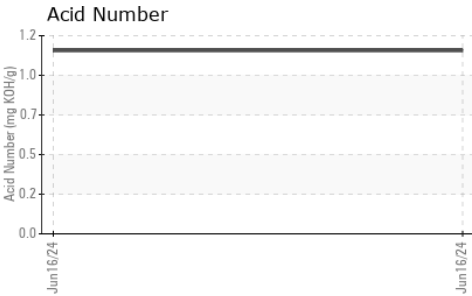
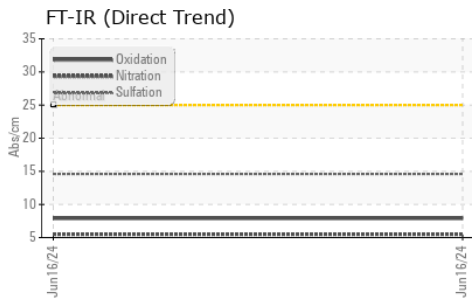
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	12	---	---
Potassium	ppm	ASTM D5185m	>20	3	---	---
Fuel	%	ASTM D3524	>4.0	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844		0.1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	5.5	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	14.6	---	---
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	---	---

FLUID CONDITION

The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185m	>400	2	---	---
Boron	ppm	ASTM D5185m		80	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		100	---	---
Manganese	ppm	ASTM D5185m		2	---	---
Magnesium	ppm	ASTM D5185m		536	---	---
Calcium	ppm	ASTM D5185m		1116	---	---
Phosphorus	ppm	ASTM D5185m		595	---	---
Zinc	ppm	ASTM D5185m		704	---	---
Sulfur	ppm	ASTM D5185m		2250	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	7.9	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		1.11	---	---
Visc @ 100°C	cSt	ASTM D445		7.9	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WCM2308058 **Received** : 17 Jun 2024
Lab Number : 06211921 **Tested** : 18 Jun 2024
Unique Number : 11084785 **Diagnosed** : 18 Jun 2024 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: FuelDilution)

NORTH AMERICAN WEST AUTOMOTIVE FORENSIC SERVICES
 PO BOX 2220
 MISSION VIEJO, CA
 US 92690
 Contact: CHAD TREDWAY
 chad.nawest@gmail.com;northamericanwest@gmail.com
 T: (888)491-1080
 F: (949)271-2360

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)