



WEAR	SEVERE
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Machine Id
HYUNDAI Hhkhml03ed0000692
Component
2 Final Drive
Fluid
GEAR OIL LS 80W90 (1 QTS)

RECOMMENDATION

We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

WEAR

The iron, chrome and nickel levels are severe. Gear wear is indicated.

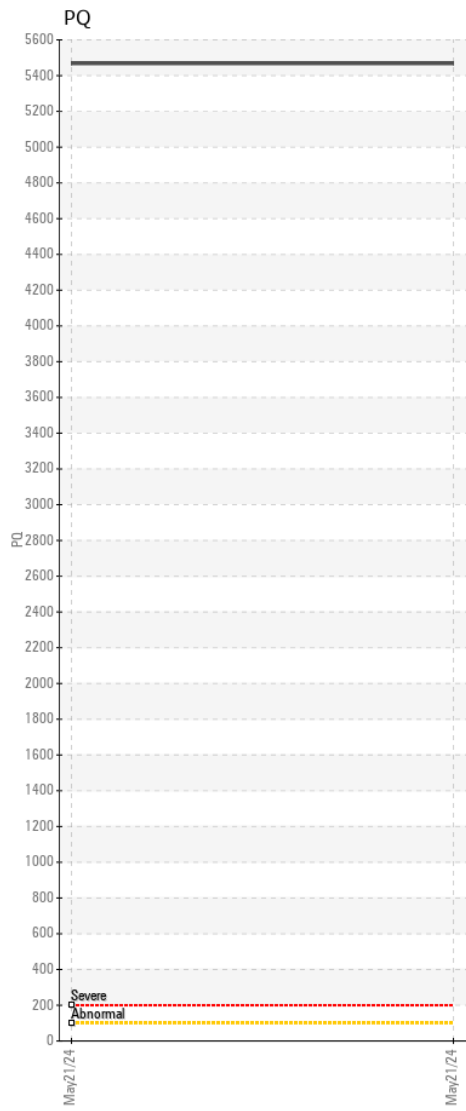
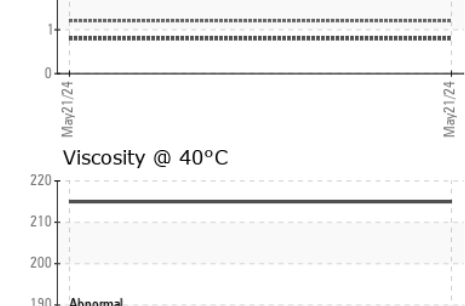
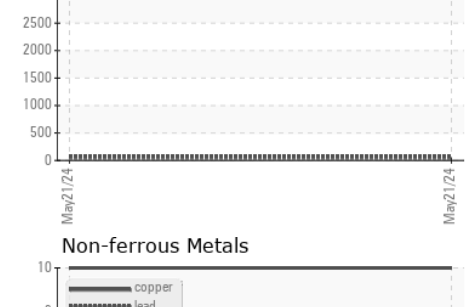
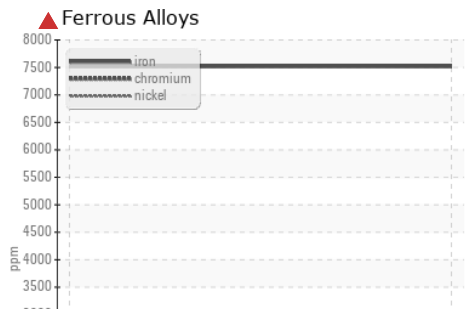
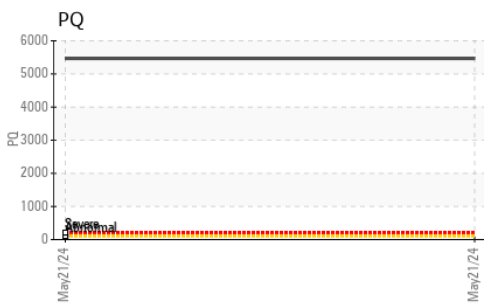
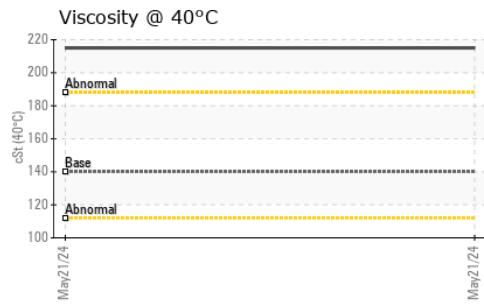
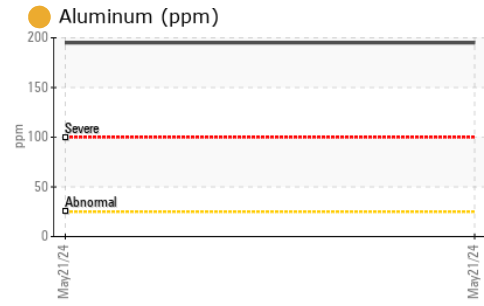
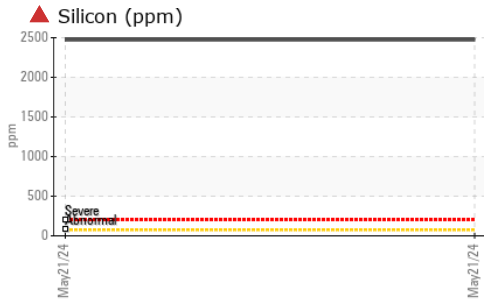
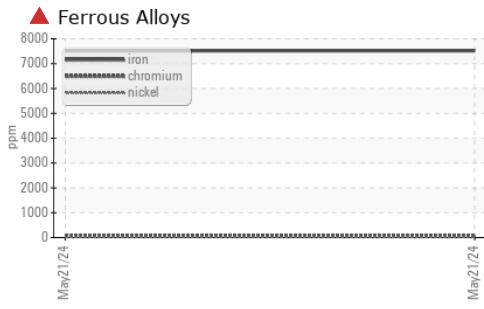
CONTAMINATION

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		JR0214201	---	---
Sample Date		Client Info		21 May 2024	---	---
Machine Age	hrs	Client Info		5244	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				SEVERE	---	---
PQ		ASTM D8184		5468	---	---
Iron	ppm	ASTM D5185m	>500	▲ 7517	---	---
Chromium	ppm	ASTM D5185m	>10	▲ 75	---	---
Nickel	ppm	ASTM D5185m	>10	▲ 23	---	---
Titanium	ppm	ASTM D5185m		45	---	---
Silver	ppm	ASTM D5185m		0	---	---
Aluminum	ppm	ASTM D5185m	>25	● 195	---	---
Lead	ppm	ASTM D5185m	>25	<1	---	---
Copper	ppm	ASTM D5185m	>50	10	---	---
Tin	ppm	ASTM D5185m	>10	1	---	---
Vanadium	ppm	ASTM D5185m		<1	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m	>75	▲ 2473	---	---
Potassium	ppm	ASTM D5185m	>20	21	---	---
Water		WC Method	>0.2	NEG	---	---
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	---	---
Sodium	ppm	ASTM D5185m		8	---	---
Boron	ppm	ASTM D5185m	150	219	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		18	---	---
Manganese	ppm	ASTM D5185m		59	---	---
Magnesium	ppm	ASTM D5185m	10	111	---	---
Calcium	ppm	ASTM D5185m	70	331	---	---
Phosphorus	ppm	ASTM D5185m	2000	974	---	---
Zinc	ppm	ASTM D5185m	50	263	---	---
Sulfur	ppm	ASTM D5185m	20000	24577	---	---
Visc @ 40°C	cSt	ASTM D445	140	215	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0214201 **Received** : 29 May 2024
Lab Number : 06194291 **Tested** : 30 May 2024
Unique Number : 11056414 **Diagnosed** : 31 May 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

EAGLE EXCAVATING
 45191 MEDLEYS NECK RD
 LEONARDTOWN, MD
 US 20650
 Contact: Service Manager

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)

T: (703)631-8500

F: