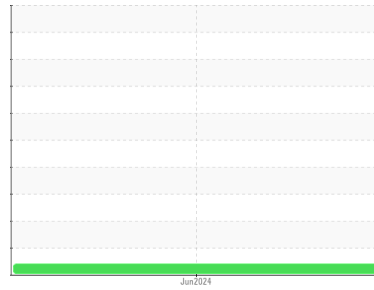




OIL ANALYSIS REPORT

Area
MINING
 Machine Id
ME-581 CATERPILLAR 988F BNH01437
 Component
Transmission (Manual)
 Fluid
SHELL Spirax S4 CX 30 (--- GAL)

Sample Rating Trend



VISCOSITY



DIAGNOSIS

▲ Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the fluid.

▲ Fluid Condition

Viscosity of sample indicates oil is within SAE 20 range, advise investigate. The condition of the fluid is acceptable for the time in service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0942055	---	---
Sample Date	Client Info		26 Jun 2024	---	---
Machine Age	hrs	Client Info	54690	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>200	5	---	---
Chromium	ppm	ASTM D5185(m)	>5	0	---	---
Nickel	ppm	ASTM D5185(m)	>5	<1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)	>7	0	---	---
Aluminum	ppm	ASTM D5185(m)	>25	1	---	---
Lead	ppm	ASTM D5185(m)	>45	0	---	---
Copper	ppm	ASTM D5185(m)	>225	10	---	---
Tin	ppm	ASTM D5185(m)	>10	0	---	---
Antimony	ppm	ASTM D5185(m)		0	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
Beryllium	ppm	ASTM D5185(m)		0	---	---
Cadmium	ppm	ASTM D5185(m)		0	---	---

ADDITIVES

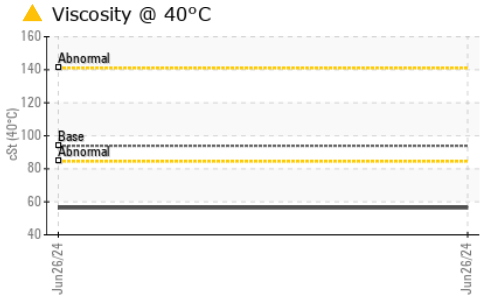
	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)		3	---	---
Barium	ppm	ASTM D5185(m)		<1	---	---
Molybdenum	ppm	ASTM D5185(m)		2	---	---
Manganese	ppm	ASTM D5185(m)		0	---	---
Magnesium	ppm	ASTM D5185(m)		15	---	---
Calcium	ppm	ASTM D5185(m)		3066	---	---
Phosphorus	ppm	ASTM D5185(m)		869	---	---
Zinc	ppm	ASTM D5185(m)		1003	---	---
Sulfur	ppm	ASTM D5185(m)		3148	---	---
Lithium	ppm	ASTM D5185(m)		<1	---	---

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>125	5	---	---
Sodium	ppm	ASTM D5185(m)		1	---	---
Potassium	ppm	ASTM D5185(m)	>20	<1	---	---



OIL ANALYSIS REPORT



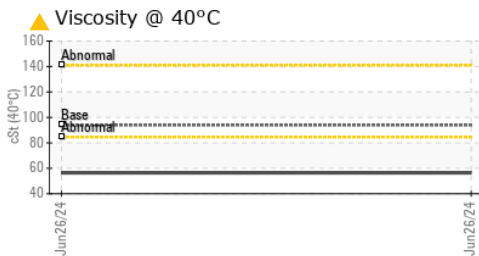
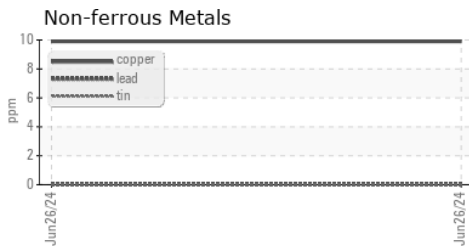
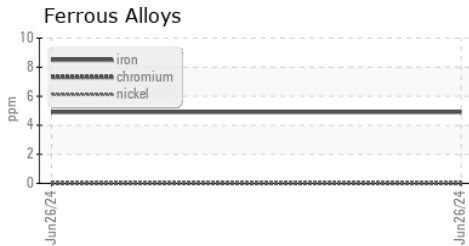
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.1	NEG	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	93.9 ▲ 56.4	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color		no image	no image
Bottom		no image	no image

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0942055 **Received** : 05 Jul 2024
Lab Number : 02645953 **Tested** : 05 Jul 2024
Unique Number : 5811505 **Diagnosed** : 05 Jul 2024 - Kevin Marson
Test Package : CONST

Covia Canada Ltd.
 260 Unimin Road, County Rd. #46
 Havelock, ON
 CA K0L 1Z0
 Contact: Dan Lyon
 dan.lyon@coviacorp.com
 T: (705)632-8904
 F:

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.