WEAR CONTAMINATION FLUID CONDITION

ABNORMAL
ABNORMAL

Area

CHAD STEELE

17-046S20-3

Hydraulic System

{not provided} (--- QTS)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
We advise that you check all areas where dirt can enter the system. Recommend drain oil if not already done and flush with cleaner before refilling with oil. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.	Sample Number		Client Info		WC0881603		
	Sample Date		Client Info		01 Jul 2024		
	Machine Age	hrs	Client Info		0		
	Oil Age	hrs	Client Info		0		
	Filter Age	hrs	Client Info		0		
	Oil Changed		Client Info		N/A		
	Filter Changed		Client Info		N/A		
	Sample Status				ABNORMAL		
WEAR	Iron	ppm	ASTM D5185m	>20	▲ 48		
	Chromium	ppm	ASTM D5185m		<1		
The iron level is abnormal.	Nickel	ppm	ASTM D5185m		0		
	Titanium	ppm	ASTM D5185m	710	<1		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m	>10	<u>5</u>		
	Lead	ppm	ASTM D5185m		0		
	Copper	ppm	ASTM D5185m		9		
	Tin	ppm	ASTM D5185m		0		
	Vanadium	ppm	ASTM D5185m		0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	>20	<u> </u>		
	Potassium	ppm	ASTM D5185m	>20	<1		
There is a high amount of particulates present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.	Water	%	ASTM D6304		0.043		
	ppm Water	ppm	ASTM D6304	>1000	435		
	Particles >4µm		ASTM D7647	>5000	111875		
	Particles >6μm		ASTM D7647	>1300	4 36311		
	Particles >14μm		ASTM D7647	>160	241		
	Particles >21µm		ASTM D7647	>40	23		
	Particles >38µm		ASTM D7647	>10	0		
	Particles >71μm		ASTM D7647	>3	0		
	Oil Cleanliness		ISO 4406 (c)		24/22/15		
	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		
FLUID CONDITION	Sodium	ppm	ASTM D5185m		3		
I LOID COMBINION	Boron	ppm	ASTM D5185m		246		
The AN level is above the recommended limit. Viscosity of sample indicates oil is within ISO 68 range, advise investigate.	Barium	ppm	ASTM D5185m		<1		
	Molybdenum	ppm	ASTM D5185m		<1		
	Manganese	ppm	ASTM D5185m		2		
	Manganooc	PPIII	AOTH DE (CE		-		

Magnesium

Phosphorus

Visc @ 100°C cSt

Calcium

Zinc

Sulfur

ppm ASTM D5185m

ppm ASTM D5185m

ppm ASTM D5185m

ppm

ppm

Acid Number (AN) mg KOH/g ASTM D8045

Visc @ 40°C cSt ASTM D445

Viscosity Index (VI) Scale ASTM D2270

ASTM D5185m

ASTM D5185m

ASTM D445

<1 8

3

1372

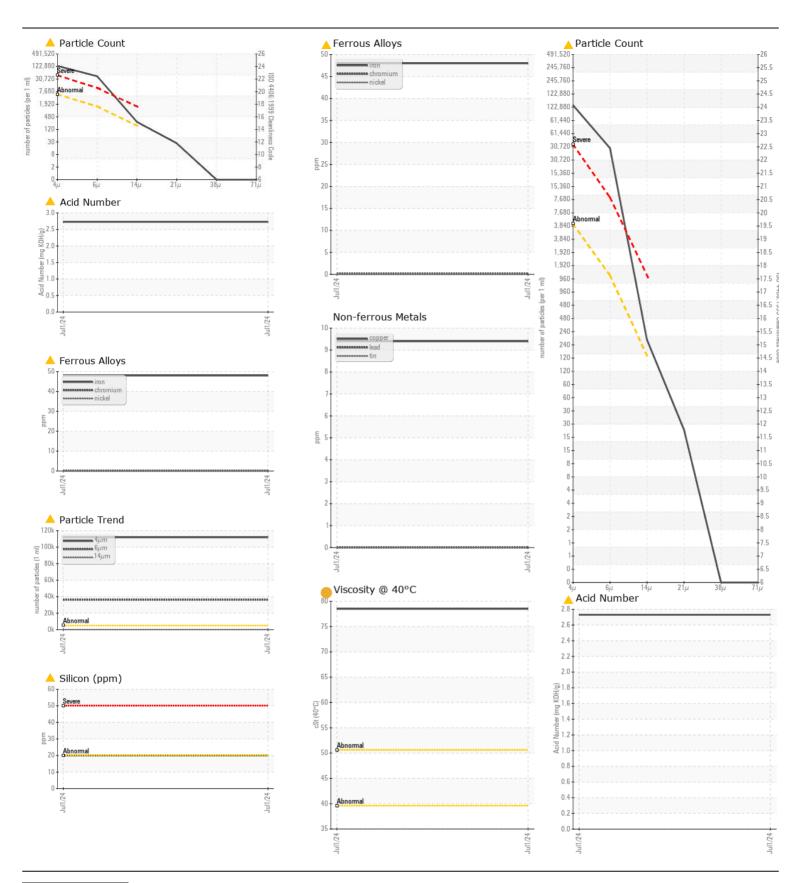
24189

2.73

78.5

13.3

172





Certificate L2367

Laboratory Sample No.

: WC0881603 Lab Number : 06226232

Unique Number : 11109725

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received **Tested**

Diagnosed Test Package: MOB 2 (Additional Tests: KF, KV100, VI)

: 03 Jul 2024 : 05 Jul 2024 - Angela Borella

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: 02 Jul 2024

500 WHITE PLAINS RD TARRYTOWN, NY US 10591 Contact: CHAD STEELE chad.steele@basf.com

BASF - TARRYTOWN

* - 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)

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T: