

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

Machine Id

24B1509 VP-006 Component New (Unused) Oil

NOT GIVEN (--- GAL)

	RECOMMENDATION
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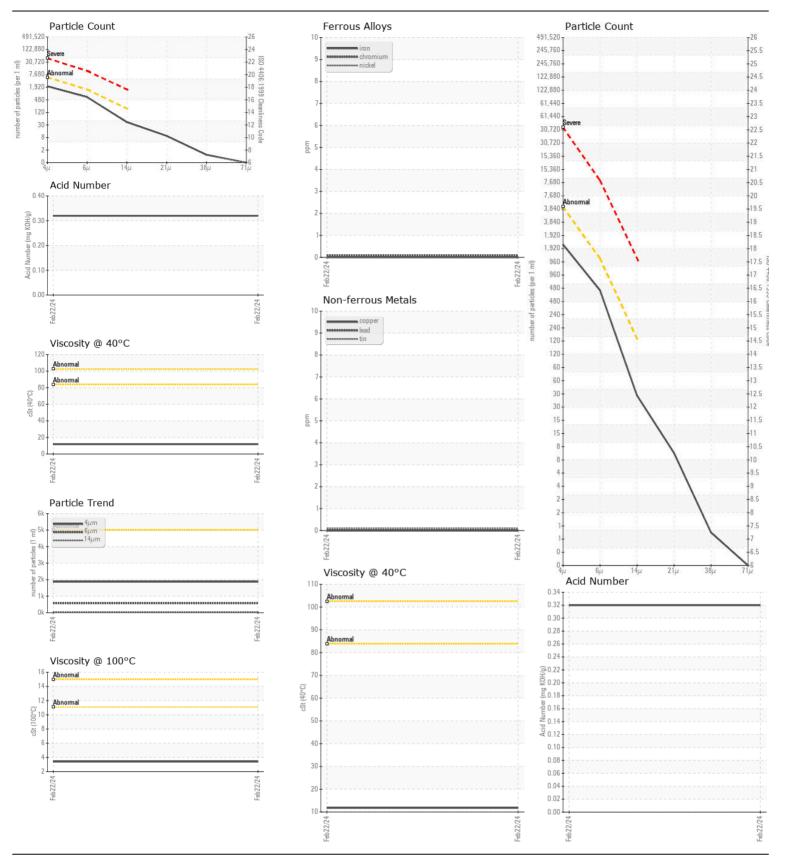
This is a baseline read-out on the submitted sample.

WEAR

CONTAMINATION

FLUID CONDITION

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		HPL0000888		
Sample Date		Client Info		22 Feb 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Filter Age	hrs	Client Info		0		
Oil Changed	-	Client Info		Not Changd		
Filter Changed		Client Info		N/A		
Sample Status				NORMAL		
Iron	ppm	ASTM D5185m		0		
Chromium	ppm	ASTM D5185m		<1		
Nickel	ppm	ASTM D5185m		0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m		0		
Lead	ppm	ASTM D5185m		0		
Copper	ppm	ASTM D5185m		0		
Tin	ppm	ASTM D5185m		<1		
Vanadium	ppm	ASTM D5185m		0		
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Silicon	ppm	ASTM D5185m		3		
Potassium	ppm	ASTM D5185m	>20	<1		
Water		WC Method		NEG		
Particles >4µm		ASTM D7647	>5000	1873		
Particles >6µm		ASTM D7647	>1300	565		
Particles >14µm		ASTM D7647	>160	36		
Particles >21µm		ASTM D7647	>40	8		
Particles >38µm		ASTM D7647	>10	1		
Particles >71µm		ASTM D7647	>3	0		
Oil Cleanliness		ISO 4406 (c)	>19/17/14	18/16/12		
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		NEG		
Sodium	ppm	ASTM D5185m		<1		
Boron	ppm	ASTM D5185m		2		
Barium	ppm	ASTM D5185m		0		
Molybdenum	ppm	ASTM D5185m		0		
Manganese	ppm	ASTM D5185m		0		
Magnesium	ppm	ASTM D5185m		8		
Calcium	ppm	ASTM D5185m		191		
Phosphorus	ppm	ASTM D5185m		9		
Zinc	ppm	ASTM D5185m		<1		
Sulfur	ppm	ASTM D5185m		213		
Acid Number (AN)	mg KOH/g	ASTM D8045		0.32		
Visc @ 40°C	cSt	ASTM D445		11.8		
Visc @ 100°C	cSt	ASTM D445		3.41		
Viscosity Index (VI)	Scale	ASTM D2270		179		



HIGH PERFORMANCE LUBRICANTS LLC Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 <u>,</u> 500 S SPRUCE ST Sample No. : HPL0000888 Received : 28 Feb 2024 MANTENO, IL Lab Number : 06103423 Tested :04 Mar 2024 US 60950 Unique Number : 10901653 Diagnosed : 04 Mar 2024 - Jonathan Hester Test Package : MOB 2 (Additional Tests: FT-IR, KV100, PrtCount, VI) Contact: DAVID WARD Certificate L2367 sampledata@hplubricants.com 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. T: (815)468-3535 F: x: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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