

WEAR CONTAMINATION FLUID CONDITION

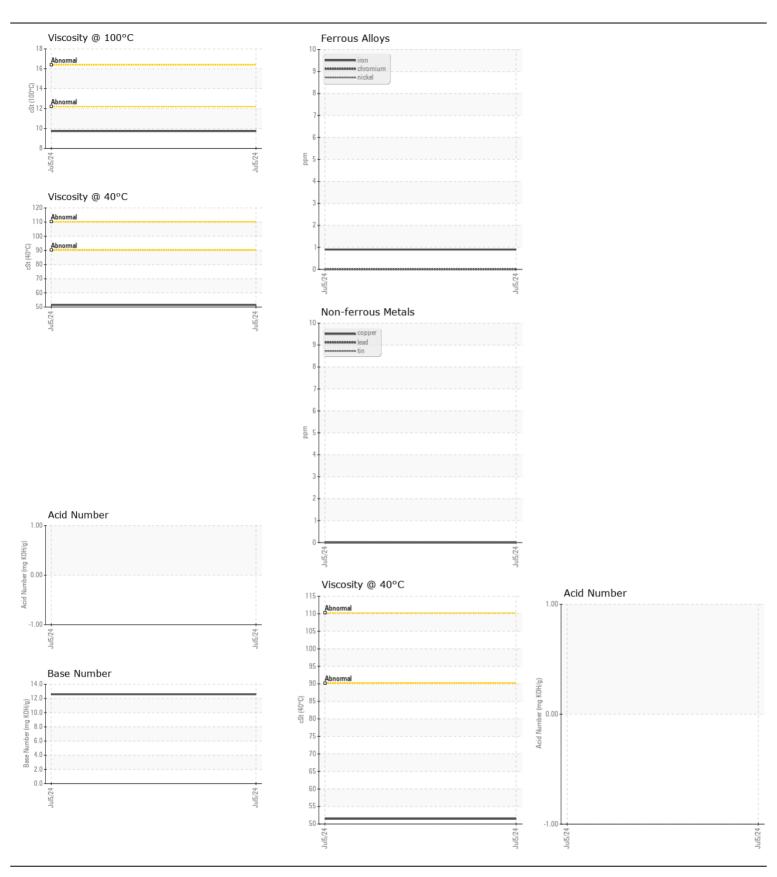
NORMAL NORMAL NORMAL

Machine Id

24G0502 PCMOEURO-205

New (Unused) Oil

Machine Age hrs Cilent Info 0	Sample Number Client Info MPL0005570 Client Info MS Jul 2024 Client Info OS Jul 2024 Client Info	
Sample Comment: PLEASE RUN A TBN Sample Date Client Info O O O O O O O O O	Sample Date Machine Age hrs Client Info 0 Machine Age hrs Client Info 0 Filter Age hrs Client Info 0 Filter Age hrs Client Info 0 Oil Changed Client Info Not Changd Filter Changed Client Info Not Changd Sample Status Normal N/A Sample Status Normal Normal Normal Normal Silver ppm ASTM 5185m 0 Silver ppm ASTM 5185m 0 Silver ppm ASTM 5185m 0 Sample Status Normal Normal Normal Sample Status Normal Normal Normal Normal Sample Status Normal Normal Normal Normal Sample Status Normal Normal Normal Normal Normal Silt Scalar Visual Normal Normal Normal Normal Sample Status Normal	
Machine Age hrs Cilent Info 0	Machine Age hrs Client Info 0	
Filter Age	Filter Age	
Oil Changed Client Info Not Changed Filter Changed Client Info N/A A A A A A A A A A	Oil Changed Cilent Info Not Changed Filter Changed Sample Status Cilent Info N/A	
Filter Changed Sample Status	Filter Changed Sample Status	
VEAR	VEAR	
	Iron	
Chromium ppm ASTM D5185n 0	Chromium ppm ASTM D5185m 0 Nickel ppm ASTM D5185m 0 Titanium ppm ASTM D5185m -1 Silver ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m 0 Lead ppm ASTM D5185m 0 Copper ppm ASTM D5185m 0 Tin ppm ASTM D5185m 0 Tin ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 White Metal scalar "Visual NONE NONE Yellow Metal scalar "Visual NONE NONE Yellow Metal scalar "Visual NONE NONE Silicon ppm ASTM D5185m 20 0 Water WC Method NEG Silt scalar "Visual NONE NONE Debris scalar "Visual NONE NONE Appearance scalar "Visual NONE NONE Appearance scalar "Visual NONE NONE Appearance scalar "Visual NORML NORML Odor scalar "Visual NORML NORML Color scalar "Visual NORML NORML Emulsified Water scalar "Visual NORML NOR	
Chromium ppm ASTM D5185n 0	Chromium ppm ASTM D5185m 0 Nickel ppm ASTM D5185m 0 Titanium ppm ASTM D5185m 0 Silver ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m 0 Copper ppm ASTM D5185m 0 Tin ppm ASTM D5185m 0 Tin ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Silicon ppm ASTM D5185m 20 0 Water WC Method NEG Silt scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Appearance scalar *Visual NONE NONE Appearance scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Codor scalar *Visual NORML NORML Emulsified Water scalar *Visual NORML NORML Sodium ppm ASTM D5185m 2 Boron ppm ASTM D5185m 4-1	
Titanium ppm ASTM D5185m <1	Titanium ppm ASTM D5185m 0	
Silver ppm ASTM D5185m <1	Titanium ppm ASTM D5185m 0	
Aluminum	Aluminum ppm ASTM D5185m 2	
Aluminum ppm ASTM D5185m 2	Aluminum ppm ASTM D5185m 2	
Lead	Lead	
Tin	Tin	
Vanadium	Vanadium	
White Metal Scalar *Visual NONE NO	White Metal Scalar *Visual NONE NO	
Yellow Metal Scalar *Visual NONE NONE Silicon ppm ASTM D5185m 20 0 0 0 0 0 0 0 0	Yellow Metal scalar *Visual NONE NONE	
Silicon ppm ASTM D5185m 20 0	Silicon ppm ASTM D5185m 12	
Potassium ppm ASTM D5185m >20 0 Water WC Method NEG Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual NORML NORML Emulsified Water scalar *Visual NORML NORML More NORML NORML NORML Meg NORML NORML NORML NORML Meg NORML	Potassium	
Potassium ppm ASTM D5185m >20 0 Water WC Method NEG Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual NORML NORML Emulsified Water scalar *Visual NORML NORML More NORML NORML NEG LUID CONDITION Sodium ppm ASTM D5185m 2 Boron ppm ASTM D5185m 76 Barium ppm ASTM D5185m 202 Manganese ppm ASTM D5185m 202 Manganese ppm ASTM D5185m 1143 Phosphorus ppm ASTM D5185m 1243 Phosphorus ppm ASTM D5185m 1243 Zinc ppm ASTM D5185m 842 Sulfur ppm ASTM D5185m 7939 Base Number (BN) mg KOHg ASTM D2896 12.58 Visc @ 40°C cst ASTM D445 51.47	Potassium	
Water WC Method NEG	Water	
Debris Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NORML NORML NORML Scalar *Visual NORML NEG Scalar *Visual NORML NORML NORML NEG Scalar *Visual NORML NORML NORML NORML NORML NEG Scalar *Visual NORML NORML NORML NORML NEG Scalar *Visual NORML NORML	Debris Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE Scalar *Visual NORML NORML Scalar *Visual NORML NORML Scalar *Visual NORML NORML Scalar *Visual NORML NORML Scalar *Visual NORML Scalar *Visual NEG Scalar *Visual *Vis	
Debris Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE NONE NONE NONE NONE NONE NONE NORML NOR	Debris Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE Sand/Dirt Scalar *Visual NONE NONE Scalar *Visual NORML NORML Scalar *Visual NORML NORML Scalar *Visual NORML NORML Scalar *Visual NORML NORML Scalar *Visual NORML Scalar *Visual NEG Scalar *Visual Scalar *Visual Scalar *Visual Scalar Scalar *Visual Scalar Scalar *Visual Scalar Scalar *Visual Scalar Scalar Scalar *Visual Scalar Scalar Scalar *Visual Scalar Scalar Scalar Scalar *Visual Scalar S	
Appearance Scalar *Visual NORML NORML NORML Emulsified Water Scalar *Visual NORML NORML NORML Emulsified Water Scalar *Visual NEG	Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML NORML NORML NORML NORML NORML NORML NORML NEG NE	
Odor Scalar *Visual NORML NORML Emulsified Water Scalar *Visual NORML NEG	Odor scalar *Visual NORML NORML	
Emulsified Water scalar *Visual NEG	Emulsified Water scalar *Visual NEG LUID CONDITION Sodium ppm ASTM D5185m 2 Boron ppm ASTM D5185m 76 Barium ppm ASTM D5185m <1	
Sodium ppm ASTM D5185m 2	Sodium ppm ASTM D5185m 2	
Boron ppm ASTM D5185m 76	Boron ppm ASTM D5185m 76 Barium ppm ASTM D5185m <1	
Boron ppm ASTM D5185m 76	Boron ppm ASTM D5185m 76 Barium ppm ASTM D5185m <1	
Barium ppm ASTM D5185m <1 Molybdenum ppm ASTM D5185m 202 Manganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 1143 Calcium ppm ASTM D5185m 1243 Phosphorus ppm ASTM D5185m 765 Zinc ppm ASTM D5185m 842 Sulfur ppm ASTM D5185m 7939 Base Number (BN) mg K0H/g ASTM D2896 12.58 Visc @ 40°C CSt ASTM D445 51.47	Barium ppm ASTM D5185m <1	
Molybdenum ppm ASTM D5185m 202 Manganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 1143 Calcium ppm ASTM D5185m 1243 Phosphorus ppm ASTM D5185m 765 Zinc ppm ASTM D5185m 842 Sulfur ppm ASTM D5185m 7939 Base Number (BN) mg KOH/g ASTM D2896 12.58 Visc @ 40°C cSt ASTM D445 51.47		
Manganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 1143 Calcium ppm ASTM D5185m 1243 Phosphorus ppm ASTM D5185m 765 Zinc ppm ASTM D5185m 842 Sulfur ppm ASTM D5185m 7939 Base Number (BN) mg KOH/g ASTM D2896 12.58 Visc @ 40°C cst ASTM D445 51.47		
Magnesium ppm ASTM D5185m 1143 Calcium ppm ASTM D5185m 1243 Phosphorus ppm ASTM D5185m 765 Zinc ppm ASTM D5185m 842 Sulfur ppm ASTM D5185m 7939 Base Number (BN) mg KOH/g ASTM D2896 12.58 Visc @ 40°C cSt ASTM D445 51.47		
Calcium ppm ASTM D5185m 1243 Phosphorus ppm ASTM D5185m 765 Zinc ppm ASTM D5185m 842 Sulfur ppm ASTM D5185m 7939 Base Number (BN) mg KOH/g ASTM D2896 12.58 Visc @ 40°C CSt ASTM D445 51.47		
Zinc ppm ASTM D5185m 842 Sulfur ppm ASTM D5185m 7939 Base Number (BN) mg KOH/g ASTM D2896 12.58 Visc @ 40°C cSt ASTM D445 51.47		
Sulfur ppm ASTM D5185m 7939 Base Number (BN) mg KOH/g ASTM D2896 12.58 Visc @ 40°C cSt ASTM D445 51.47	Phosphorus ppm ASTM D5185m 765	
Base Number (BN) mg KOH/g ASTM D2896 12.58 Visc @ 40°C cSt ASTM D445 51.47	Zinc ppm ASTM D5185m 842	
Visc @ 40°C	Sulfur ppm ASTM D5185m 7939	
	Base Number (BN) mg KOH/g ASTM D2896 12.58	
Visc @ 100°C cSt ASTM D445 9.73	Visc @ 40°C	
	Visc @ 100°C cSt ASTM D445 9.73	







Certificate L2367

Laboratory Sample No. Unique Number : 11117222

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : HPL0005570 Lab Number : 06233729

Tested

Received : 11 Jul 2024 Diagnosed

: 17 Jul 2024 : 17 Jul 2024 - Jonathan Hester

HIGH PERFORMANCE LUBRICANTS LLC 500 S SPRUCE ST

MANTENO, IL US 60950

Test Package : MOB 2 (Additional Tests: FT-IR, ICP-NewOil, KV100, PrtCount, TBN, VI) To discuss this sample report, contact Customer Service at 1-800-237-1369.

Contact: DAVID WARD sampledata@hplubricants.com T: (815)468-3535

* - 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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