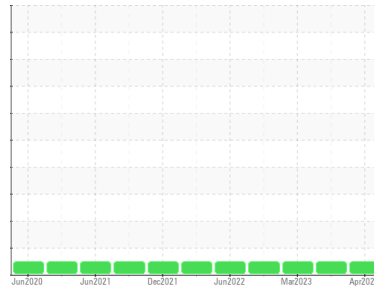




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
A-502.1
 Component
Gearbox
 Fluid
HPL GL 150 (--- LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

The water content is negligible. There is no indication of any contamination in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		HPL0003858	HPL0004011	HPL0002188
Sample Date	Client Info		23 Apr 2024	05 Oct 2023	14 Mar 2023
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		Not Changed	Not Changed	Not Changed
Sample Status			NORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >200	38	35	31
Chromium	ppm	ASTM D5185m >10	0	0	0
Nickel	ppm	ASTM D5185m >10	0	0	0
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m	<1	0	0
Aluminum	ppm	ASTM D5185m >25	<1	<1	1
Lead	ppm	ASTM D5185m >50	<1	0	0
Copper	ppm	ASTM D5185m >200	1	0	0
Tin	ppm	ASTM D5185m >10	0	0	0
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m	0	<1	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	0	4	2
Calcium	ppm	ASTM D5185m	0	10	7
Phosphorus	ppm	ASTM D5185m	136	178	176
Zinc	ppm	ASTM D5185m	78	108	85
Sulfur	ppm	ASTM D5185m	24524	22168	21775

CONTAMINANTS

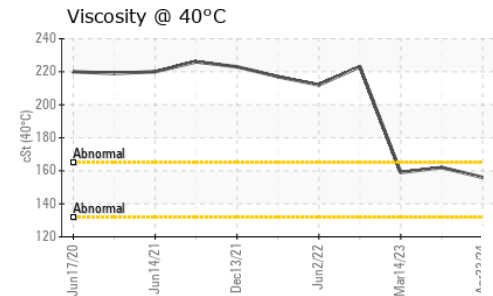
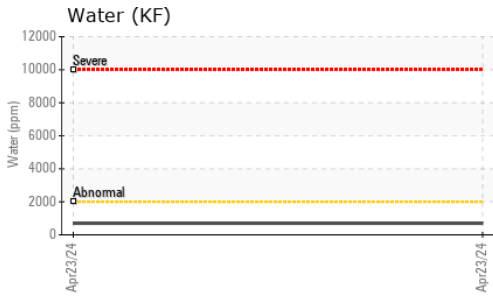
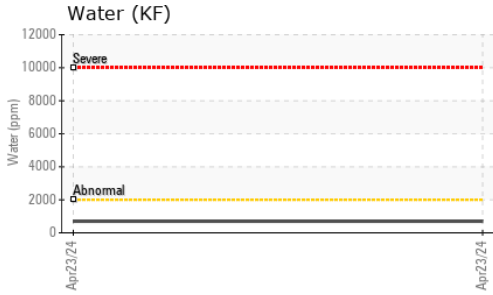
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >50	2	1	3
Sodium	ppm	ASTM D5185m	2	0	0
Potassium	ppm	ASTM D5185m >20	0	0	<1
Water	%	ASTM D6304 >0.2	0.070	---	---
ppm Water	ppm	ASTM D6304 >2000	700	---	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.45	0.48	0.58



OIL ANALYSIS REPORT



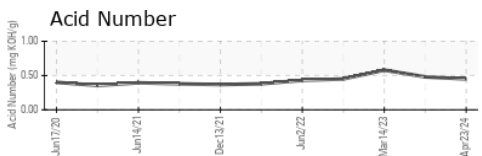
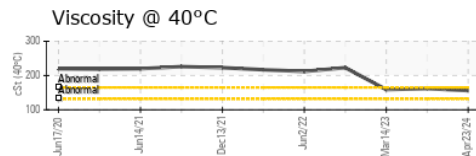
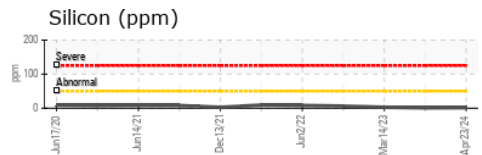
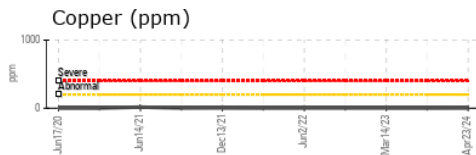
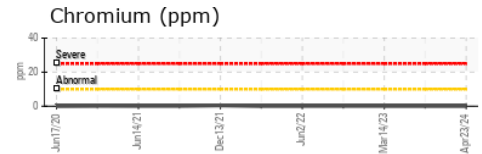
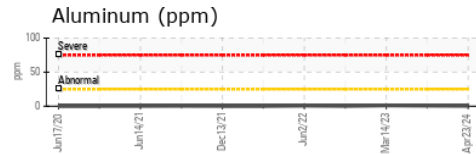
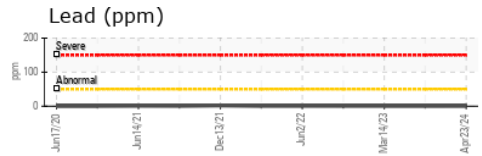
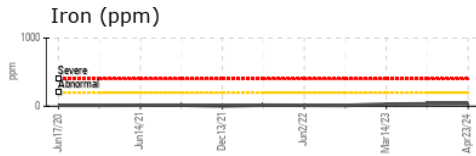
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	0.2%	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	156	162	159

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

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : HPL0003858 **Received** : 17 May 2024
Lab Number : 06183022 **Tested** : 21 May 2024
Unique Number : 11034348 **Diagnosed** : 21 May 2024 - Wes Davis
Test Package : MOB 2 (Additional Tests: KF)

STEPAN - MILLSDALE PLANT
 22500W. Millsdale Rd.
 Elwood, IL
 US 60421

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)

Contact: David Frush
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F: (815)774-5427