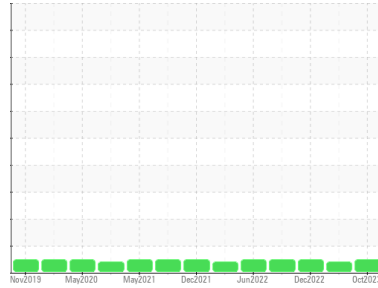




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**PHILADELPHIA A-803.1**  
 Component  
**Gearbox**  
 Fluid  
**GEAR OIL LS 80W90 (--- LTR)**

## 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 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			<b>HPL0004020</b>	HPL0003576	HPL0001830
Sample Date	Client Info			<b>04 Oct 2023</b>	02 Jun 2023	09 Dec 2022
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>Not Changed</b>	Not Changd	Not Changed
Sample Status				<b>NORMAL</b>	MARGINAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	<b>8</b>	17	14
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>6</b>	8	6
Silver	ppm	ASTM D5185m		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>25	<b>24</b>	22	17
Lead	ppm	ASTM D5185m	>50	<b>0</b>	0	1
Copper	ppm	ASTM D5185m	>200	<b>0</b>	0	<1
Tin	ppm	ASTM D5185m	>10	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

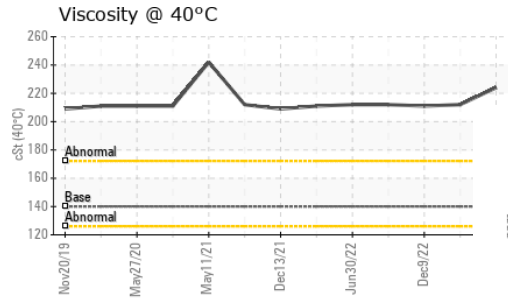
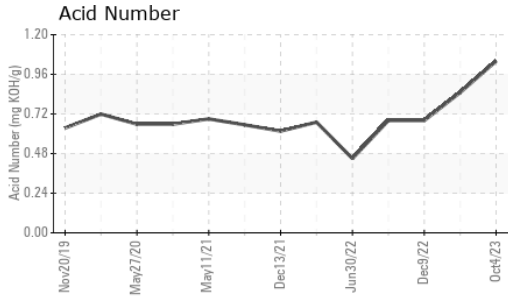
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	150	<b>&lt;1</b>	3	<1
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m	10	<b>3</b>	<1	4
Calcium	ppm	ASTM D5185m	70	<b>108</b>	367	101
Phosphorus	ppm	ASTM D5185m	2000	<b>451</b>	651	540
Zinc	ppm	ASTM D5185m	50	<b>22</b>	8	2
Sulfur	ppm	ASTM D5185m	20000	<b>1894</b>	1080	1001

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>50	<b>2</b>	2	2
Sodium	ppm	ASTM D5185m		<b>9</b>	12	9
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	7

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>1.04</b>	0.85	0.68

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

# OIL ANALYSIS REPORT



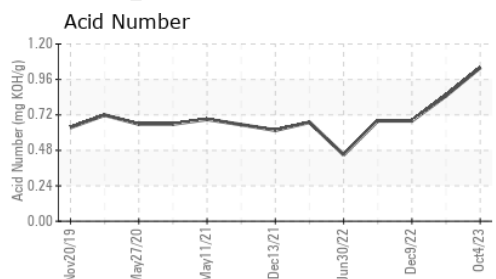
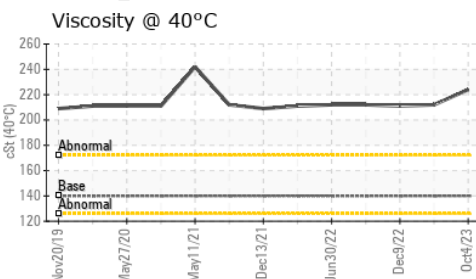
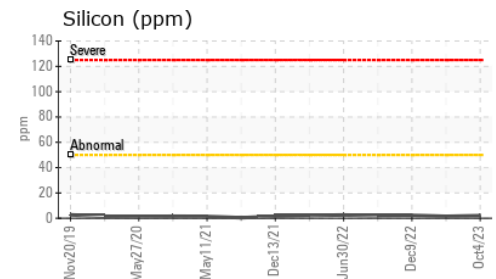
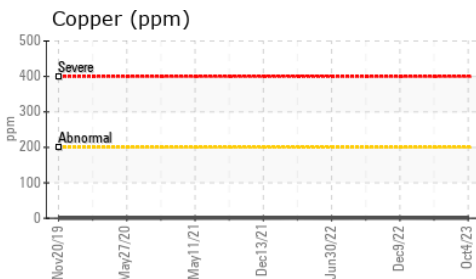
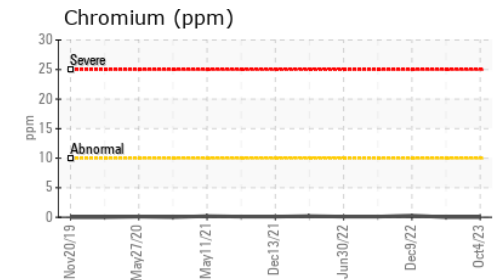
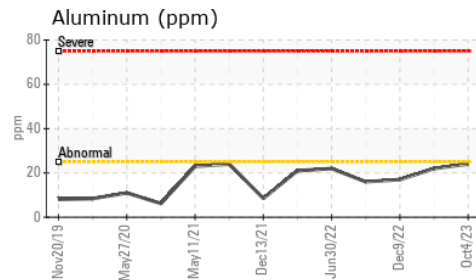
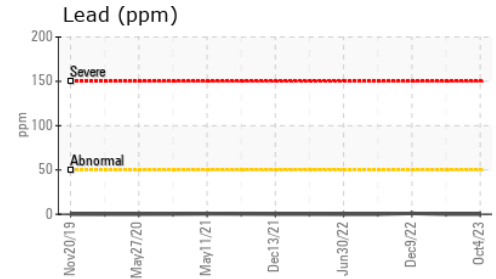
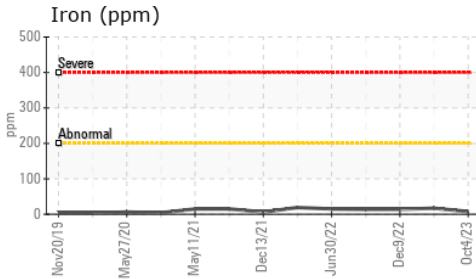
### FLUID PROPERTIES

	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 140	<b>224</b>	212	211

### SAMPLE IMAGES

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

### GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : HPL0004020 **Received** : 18 Oct 2023  
**Lab Number** : 05982532 **Diagnosed** : 20 Oct 2023  
**Unique Number** : 10699827 **Diagnostician** : Jonathan Hester  
**Test Package** : MOB 2

**STEPAN - MILLSDALE PLANT**  
 22500W. Millsdale Rd.  
 Elwood, IL  
 US 60421  
 Contact: Gregory Brooker  
 gbrooker@stepan.com  
 T: (815)774-5265  
 F: (815)774-5427

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)