

# **PROBLEM SUMMARY**

Sample Rating Trend

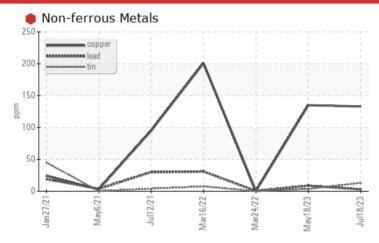


LIM4\_U43 LIM4\_U43\_P43

**Non-Drive End Pump** 

**ROYAL PURPLE SYNFILM GT 32 (--- GAL)** 

#### COMPONENT CONDITION SUMMARY



#### RECOMMENDATION

We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS								
Sample Status				SEVERE	SEVERE	NORMAL		
Copper	ppm	ASTM D5185m	>30	<b>133</b>	135	<1		
Tin	ppm	ASTM D5185m	>9	<b>1</b> 3	4	<1		

**Customer Id: ENELIM** Sample No.: RP0029427 Lab Number: 05903827 Test Package: PLANT



To manage this report scan the QR code

To discuss the diagnosis or test data:

Don Baldridge +1 don.b505@comcast.net

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

### RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Inspect Wear Source			?	We advise that you inspect for the source(s) of wear.
Resample			?	We recommend an early resample to monitor this condition.

#### HISTORICAL DIAGNOSIS

#### 18 May 2023 Diag: Don Baldridge

#### WEAR



We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Bearing and/or bushing wear is indicated. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

# view report

#### 24 Mar 2022 Diag: Don Baldridge

#### NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

# view report

#### 16 Mar 2022 Diag: Don Baldridge

#### WEAR



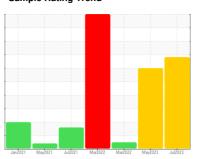
We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Bearing and/or bushing wear is indicated. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.





# **OIL ANALYSIS REPORT**

Sample Rating Trend





# LIM4\_U43 LIM4\_U43\_P43

**Non-Drive End Pump** 

**ROYAL PURPLE SYNFILM GT 32 (--- GAL)** 

### DIAGNOSIS

#### Recommendation

We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

#### Wear

Bearing and/or bushing wear is indicated.

#### 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 acceptable for the time in service.

Sample Number         Client Info         RP0029427         RP0029430         RP196824           Sample Date         Client Info         18 Jul 2023         18 May 2023         24 Mar 202           Machine Age         hrs         Client Info         0         0         0         0           Oil Age         hrs         Client Info         0         0         0         0           Oil Changed         Client Info         N/A         N/A         N/A         N/A           Sample Status         Client Info         N/A         N/A         N/A         N/A           WEAR METALS         method         limit/base         current         history1         history1           Iron         ppm         ASTM D5185m         >5         0         0         0           Nickel         ppm         ASTM D5185m         >5         0         0         0           Nickel         ppm         ASTM D5185m         >3         0         0         0           Nickel         ppm         ASTM D5185m         >3         0         0         0           Iron         ppm         ASTM D5185m         >3         0         0         0           Aluminum<	Sample Number Sample Date Machine Age Oil Age Oil Changed Sample Status	hrs	Client Info	limit/base			history2
Sample Date         Client Info         18 Jul 2023         18 May 2023         24 Mar 202           Machine Age         hrs         Client Info         0         0         0         0           Oil Age         hrs         Client Info         0         0         0         0           Oil Changed         Client Info         N/A         N/A         N/A         N/A           Sample Status         Client Info         N/A         N/A         N/A         N/A           WEAR METALS         method         Imitibase         current         history1         history2           Iron         ppm         ASTM D5185m         >5         0         0         0         0           Chromium         ppm         ASTM D5185m         >5         0         0         0         0           Nickel         ppm         ASTM D5185m         >3         0         0         0         0           Silver         ppm         ASTM D5185m         >3         0         0         0         0         1         0         1         0         1         0         1         0         1         0         1         1         0         0	Sample Date Machine Age Oil Age Oil Changed Sample Status		Client Info		RP0029427	RP0029430	DD106004
Machine Age         hrs         Client Info         0         0         0           Oil Age         hrs         Client Info         0         0         0           Oil Changed         Client Info         N/A         N/A         N/A           Sample Status         SEVERE         SEVERE         NORMAL           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >90         <1	Machine Age Oil Age Oil Changed Sample Status					00=0.00	NF 130024
Machine Age         hrs         Client Info         0         0         0           Oil Age         hrs         Client Info         0         0         0         0           Oil Changed         Client Info         N/A         N/A         N/A         N/A         N/A           Sample Status         Client Info         N/A         N/A         N/A         N/A         N/A           WEAR METALS         method         Immobilem         SEVERE         SEVERE         NONE           Iron         ppm         ASTM D5185m         90         <1         <1         0           Chromium         ppm         ASTM D5185m         >5         0         0         0           Nickel         ppm         ASTM D5185m         >3         0         0         0           Silver         ppm         ASTM D5185m         >3         0         0         0           Aluminum         ppm         ASTM D5185m         >7         <1         <1         0           Lead         ppm         ASTM D5185m         >7         <1         <1         0           Copper         ppm         ASTM D5185m         >30         0         0	Machine Age Oil Age Oil Changed Sample Status		011-11-1		18 Jul 2023	18 May 2023	24 Mar 2022
Oil Changed Sample Status         Client Info         N/A         N/A         N/A         N/A         N/A         Severe         N/A           Water         ASTM Deff85m         3	Oil Changed Sample Status	hrs	Client Info		0		0
Sample Status         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >90         <1	Sample Status		Client Info		0	0	0
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >90         <1	Sample Status		Client Info		N/A	N/A	N/A
Iron	WEAR METALS				SEVERE	SEVERE	NORMAL
Chromium         ppm         ASTM D5185m         >5         0         0         0           Nickel         ppm         ASTM D5185m         >5         0         <1         0           Titanium         ppm         ASTM D5185m         >3         0         0         0           Silver         ppm         ASTM D5185m         >3         0         0         <1           Aluminum         ppm         ASTM D5185m         >7         <1         <1         0           Lead         ppm         ASTM D5185m         >12         3         9         <1           Copper         ppm         ASTM D5185m         >30         133         135         <1           Tin         ppm         ASTM D5185m         9         ▲ 13         4         <1           Vanadium         ppm         ASTM D5185m         0         0         0         0           Cadium         ppm         ASTM D5185m         0         0         0         0           Boron         ppm         ASTM D5185m         0         0         0         0           Boron         ppm         ASTM D5185m         0         0         0         0			method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>90	<1	<1	0
Titanium	Chromium	ppm	ASTM D5185m	>5	0	0	0
Silver	Nickel	ppm	ASTM D5185m	>5	0	<1	0
Aluminum         ppm         ASTM D5185m         >7         <1         <1         0           Lead         ppm         ASTM D5185m         >12         3         9         <1	Titanium	ppm	ASTM D5185m	>3	0	0	0
Lead         ppm         ASTM D5185m         >12         3         9         <1           Copper         ppm         ASTM D5185m         >30         133         135         <1	Silver	ppm	ASTM D5185m	>3	0	0	<1
Copper         ppm         ASTM D5185m         >30         133         135         <1           Tin         ppm         ASTM D5185m         >9         ▲ 13         4         <1	Aluminum	ppm	ASTM D5185m	>7	<1	<1	0
Copper         ppm         ASTM D5185m         >30         133         135         <1           Tin         ppm         ASTM D5185m         >9         ▲ 13         4         <1	Lead	ppm	ASTM D5185m	>12	3	9	<1
Trin	Copper		ASTM D5185m	>30	<b>133</b>	135	<1
Vanadium         ppm         ASTM D5185m         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         1         0         0         1           Molybdenum         ppm         ASTM D5185m         0         0         0         0         0         0           Manganese         ppm         ASTM D5185m         0         <1         0         0         0           Magnesium         ppm         ASTM D5185m         78         85         45         0         0         0         0           Calcium         ppm         ASTM D5185m         3         3         3         0 <td></td> <td></td> <td></td> <td></td> <th><b>1</b>3</th> <td>4</td> <td>&lt;1</td>					<b>1</b> 3	4	<1
Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         0         1           Molybdenum         ppm         ASTM D5185m         0         0         0         0           Manganese         ppm         ASTM D5185m         0         <1         0           Magnesium         ppm         ASTM D5185m         78         85         45           Calcium         ppm         ASTM D5185m         3         3         0           Phosphorus         ppm         ASTM D5185m         41         3         10           Zinc         ppm         ASTM D5185m         0         0         0         0           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >60         3         2         0           Sodium         ppm         ASTM D51	Vanadium		ASTM D5185m		0	0	0
Boron						0	0
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         0         0         0           Manganese         ppm         ASTM D5185m         78         85         45           Magnesium         ppm         ASTM D5185m         78         85         45           Calcium         ppm         ASTM D5185m         3         3         0           Phosphorus         ppm         ASTM D5185m         <1         3         10           Zinc         ppm         ASTM D5185m         0         0         0         0           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >60         3         2         0           Sodium         ppm         ASTM D5185m         >20         0         1         <1         0           Potassium         ppm         ASTM D5185m         >20         0         1         <1         0           Water         %         ASTM D6304         0.012         0.009         0.021         1           ppm Water         ppm         ASTM D6304         >.1         128.1         92.1         214.3	Boron	ppm	ASTM D5185m		0	0	0
Manganese         ppm         ASTM D5185m         0         <1         0           Magnesium         ppm         ASTM D5185m         78         85         45           Calcium         ppm         ASTM D5185m         3         3         0           Phosphorus         ppm         ASTM D5185m         <1	Barium	ppm	ASTM D5185m		0	0	1
Magnesium         ppm         ASTM D5185m         78         85         45           Calcium         ppm         ASTM D5185m         3         0           Phosphorus         ppm         ASTM D5185m         <1	Molybdenum	ppm	ASTM D5185m		0	0	0
Calcium         ppm         ASTM D5185m         3         3         0           Phosphorus         ppm         ASTM D5185m         <1	Manganese	ppm	ASTM D5185m		0	<1	0
Phosphorus         ppm         ASTM D5185m         <1         3         10           Zinc         ppm         ASTM D5185m         0         0         0           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >60         3         2         0           Sodium         ppm         ASTM D5185m         >60         3         2         0           Sodium         ppm         ASTM D5185m         >20         0         1         <1           Potassium         ppm         ASTM D5185m         >20         0         1         <1           Water         %         ASTM D6304         0.012         0.009         0.021           Water         %         ASTM D6304         >.1         128.1         92.1         214.3           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         0.34         0.30         0.26           VISUAL         method         limit/base         current         history1         history2 </td <td>Magnesium</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <th>78</th> <td>85</td> <td>45</td>	Magnesium	ppm	ASTM D5185m		78	85	45
Zinc         ppm         ASTM D5185m         0         0         0           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >60         3         2         0           Sodium         ppm         ASTM D5185m         >1         1         1         0           Potassium         ppm         ASTM D5185m         >20         0         1         <1	Calcium	ppm	ASTM D5185m		3	3	0
Zinc         ppm         ASTM D5185m         0         0         0           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >60         3         2         0           Sodium         ppm         ASTM D5185m         >60         3         2         0           Potassium         ppm         ASTM D5185m         >20         0         1         <1	Phosphorus	ppm	ASTM D5185m		<1	3	10
Silicon         ppm         ASTM D5185m         >60         3         2         0           Sodium         ppm         ASTM D5185m         <1         1         0           Potassium         ppm         ASTM D5185m         >20         0         1         <1           Water         %         ASTM D6304         0.012         0.009         0.021           ppm Water         ppm         ASTM D6304         >.1         128.1         92.1         214.3           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         0.34         0.30         0.26           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE           Precipitate         scalar         *Visual         NONE         NONE         NONE         NONE			ASTM D5185m		0	0	0
Sodium         ppm         ASTM D5185m         <1         1         0           Potassium         ppm         ASTM D5185m         >20         0         1         <1	CONTAMINANTS	;	method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         0         1         <1           Water         %         ASTM D6304         0.012         0.009         0.021           ppm Water         ppm         ASTM D6304         >.1         128.1         92.1         214.3           FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         0.34         0.30         0.26           VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE         LIGHT         NONE           Yellow Metal         scalar         *Visual         NONE         NONE         NONE         NONE           Precipitate         scalar         *Visual         NONE         NONE         NONE         NONE           Silt         scalar         *Visual         NONE         NONE         NONE         NONE	Silicon	ppm	ASTM D5185m	>60	3	2	0
Water         %         ASTM D6304         0.012         0.009         0.021           ppm Water         ppm ASTM D6304         >.1         128.1         92.1         214.3           FLUID DEGRADATION method limit/base current history1         history2           Acid Number (AN) mg KOH/g ASTM D8045         0.34         0.30         0.26           VISUAL method limit/base current history1 history2           White Metal scalar *Visual NONE NONE LIGHT NONE         NONE NONE NONE NONE NONE         NONE NONE NONE NONE NONE NONE NONE NONE	Sodium	ppm	ASTM D5185m		<1	1	0
ppm Water ppm ASTM D6304 >.1 128.1 92.1 214.3  FLUID DEGRADATION method limit/base current history1 history2  Acid Number (AN) mg KOH/g ASTM D8045 0.34 0.30 0.26  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE LIGHT NONE  Yellow Metal scalar *Visual NONE NONE NONE NONE NONE  Precipitate scalar *Visual NONE NONE NONE NONE NONE  Silt scalar *Visual NONE NONE NONE NONE NONE NONE	Potassium	ppm	ASTM D5185m	>20	0	1	<1
FLUID DEGRADATION method limit/base current history1 history2  Acid Number (AN) mg KOH/g ASTM D8045 0.34 0.30 0.26  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE LIGHT NONE  Yellow Metal scalar *Visual NONE NONE NONE NONE NONE  Precipitate scalar *Visual NONE NONE NONE NONE NONE  Silt scalar *Visual NONE NONE NONE NONE NONE	Water	%	ASTM D6304		0.012	0.009	0.021
Acid Number (AN) mg KOH/g ASTM D8045 0.34 0.30 0.26  VISUAL method limit/base current history1 history2  White Metal scalar *Visual NONE NONE LIGHT NONE  Yellow Metal scalar *Visual NONE NONE NONE NONE NONE  Precipitate scalar *Visual NONE NONE NONE NONE NONE  Silt scalar *Visual NONE NONE NONE NONE NONE	ppm Water	ppm	ASTM D6304	>.1	128.1	92.1	214.3
VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE LIGHT NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE	FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
White Metal scalar *Visual NONE NONE LIGHT NONE Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE	Acid Number (AN)	mg KOH/g	ASTM D8045		0.34	0.30	0.26
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONE	VISUAL		method	limit/base	current	history1	history2
Precipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONE							
Silt scalar *Visual NONE NONE NONE NONE		scalar					
	Precipitate	scalar	*Visual	NONE			
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris scalar *Visual NONE NONE LIGHT LIGHT	Debris	scalar	*Visual	NONE	NONE	LIGHT	LIGHT
Sand/Dirt scalar *Visual NONE NONE NONE NONE	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance scalar *Visual NORML NORML NORML NORML NORML	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor scalar *Visual NORML NORML NORML NORML	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water scalar *Visual NEG NEG NEG	Emulsified Water	scalar	*Visual		NEG	NEG	NEG

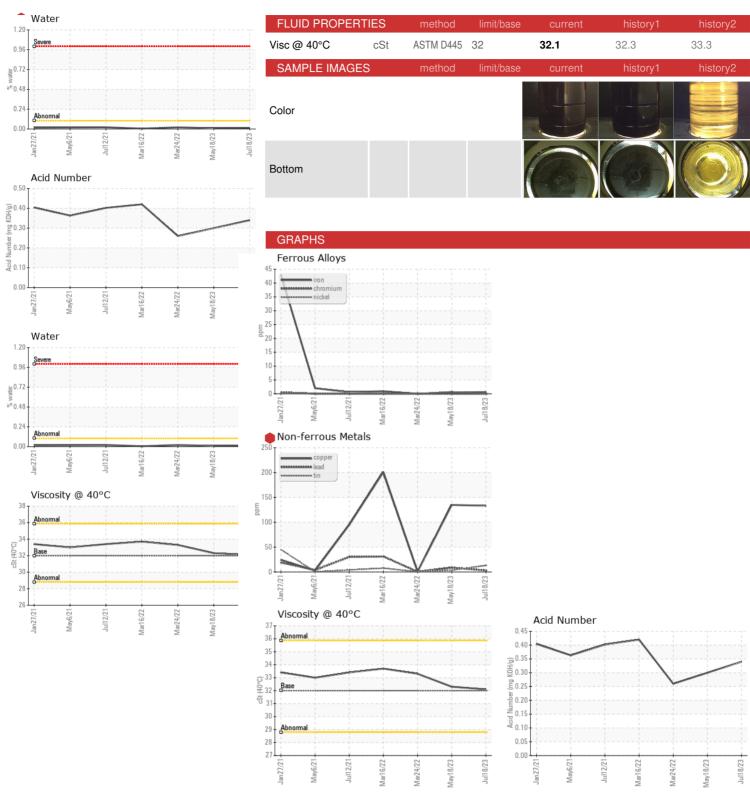
scalar \*Visual

NDREW WYDERKALENELIM

**NEG** 



## **OIL ANALYSIS REPORT**







Laboratory Sample No. Lab Number **Unique Number** Test Package : PLANT

: RP0029427 : 05903827 : 10565183

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

: 20 Jul 2023 : 24 Jul 2023 Diagnostician : Don Baldridge **ENERGY TRANSFER - LIMA** 1520 BUCKEYE RD

LIMA, OH US 45804

Contact: ANDREW WYDERKA

andrew.wyderka@energytransfer.com T: (419)618-1505

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)

F: