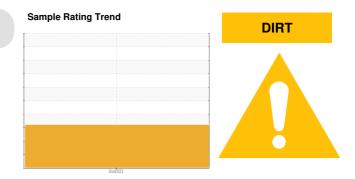


# **PROBLEM SUMMARY**

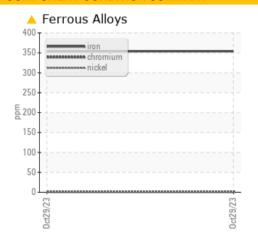
Building 12 Conveyor 14A

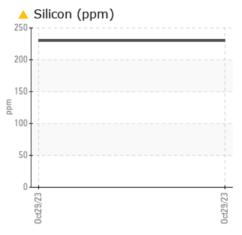
**Drive End Conveyor Gearbox** 

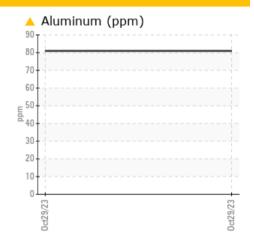
SCHAEFFER 293A SUPREME GEAR LUBE NO TACK 220 (--- GAL)



## **COMPONENT CONDITION SUMMARY**







## RECOMMENDATION

We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS								
Sample Status				ABNORMAL				
Iron	ppm	ASTM D5185m	>200	<b>△</b> 354				
Aluminum	ppm	ASTM D5185m		<u> </u>				
Silicon	ppm	ASTM D5185m		<b>230</b>				

**Customer Id: THRPIT Sample No.:** WC0853766 Lab Number: 06008466 Test Package: IND 2



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		
Check Dirt Access			?	We advise that you check all areas where dirt can enter the system.		

# HISTORICAL DIAGNOSIS

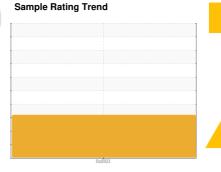


# **OIL ANALYSIS REPORT**

Building 12 **Conveyor 14A** 

**Drive End Conveyor Gearbox** 

SCHAEFFER 293A SUPREME GEAR LUBE NO TACK 220 (--- GAL)





**DIAGNOSIS** 

Recommendation

We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor.

Gear wear is indicated.

## Contamination

Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

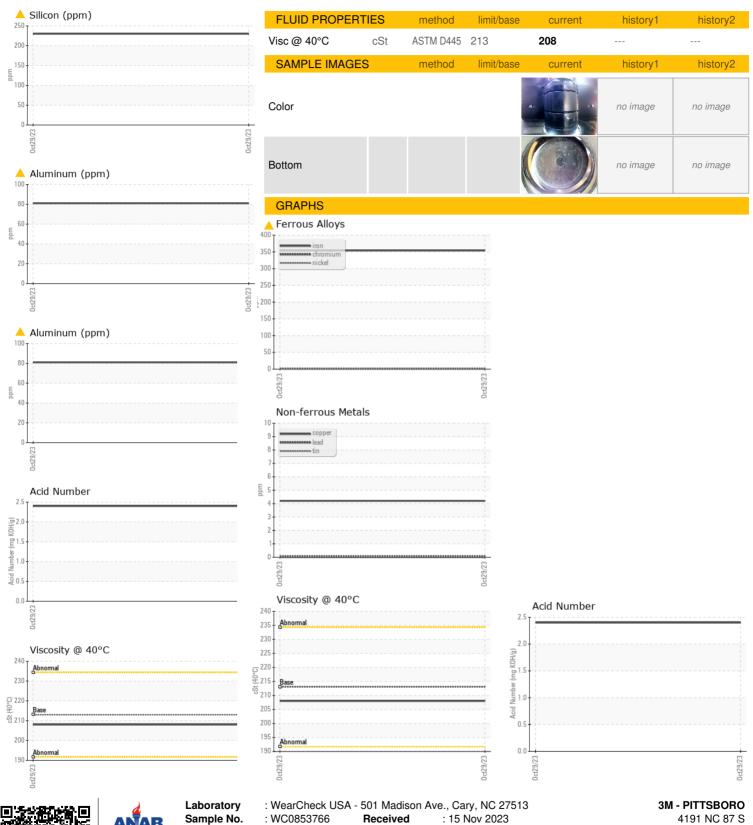
#### **Fluid Condition**

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

Sample Number         Client Info         WC0853766             Sample Date         Client Info         29 Oct 2023             Machine Age         hrs         Client Info         0             Oil Age         hrs         Client Info         5480             Oil Changed         Client Info         Changed             Sample Status         ABNORMAL             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >200         354             Chromium         ppm         ASTM D5185m         >10         1             Chromium         ppm         ASTM D5185m         >10         <1             Nickel         ppm         ASTM D5185m         5              Silver         ppm         ASTM D5185m         0              Aluminum         ppm         ASTM D5185m         4	NO TACK 220 (	- GAL)			Oct2023		
Sample Date         Client Info         29 Oct 2023	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Date         Client Info         29 Oct 2023             Machine Age         hrs         Client Info         5480             Oil Changed         Client Info         5480             Sample Status         Method         Imitibase         current         history1         history2           Iron         ppm         ASTM D5185m         >200         354             Chromium         ppm         ASTM D5185m         >10         1             Nickel         ppm         ASTM D5185m         >10         1             Silver         ppm         ASTM D5185m         0              Aluminum         ppm         ASTM D5185m         0              Copper         ppm         ASTM D5185m         0              Tin         ppm         ASTM D5185m         4              Vanadium         ppm         ASTM D5185m         <1	Sample Number		Client Info		WC0853766		
Oil Age         hrs         Client Info         5480	Sample Date		Client Info		29 Oct 2023		
Oil Changed         hrs         Client Info         5480             Oil Changed Sample Status         Client Info         Changed             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM 05185m         >200         354             Chromium         ppm         ASTM 05185m         >10         1             Nickel         ppm         ASTM 05185m         >10         -1             Silver         ppm         ASTM 05185m         5              Aluminum         ppm         ASTM 05185m         0              Aluminum         ppm         ASTM 05185m         0              Aluminum         ppm         ASTM 05185m         0	Machine Age	hrs	Client Info		0		
MEAR METALS		hrs	Client Info		5480		
MEAR METALS	Oil Changed		Client Info		Changed		
Iron					_		
Chromium         ppm         ASTM D5185m         >10         1             Nickel         ppm         ASTM D5185m         >10         <1             Titanium         ppm         ASTM D5185m         5             Silver         ppm         ASTM D5185m         0             Aluminum         ppm         ASTM D5185m         0             Lead         ppm         ASTM D5185m         0             Copper         ppm         ASTM D5185m         4             Tin         ppm         ASTM D5185m         4             Vanadium         ppm         ASTM D5185m         41             Cadmium         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         74             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         5 <th>WEAR METALS</th> <th></th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	WEAR METALS		method	limit/base	current	history1	history2
Chromium         ppm         ASTM D5185m         >10         1             Nickel         ppm         ASTM D5185m         >10         <1	Iron	mqq	ASTM D5185m	>200	<b>△</b> 354		
Nickel	Chromium		ASTM D5185m	>10	1		
Titanium	Nickel			>10	<1		
Silver							
Aluminum							
Lead         ppm         ASTM D5185m         0             Copper         ppm         ASTM D5185m         4             Tin         ppm         ASTM D5185m         <1							
Copper         ppm         ASTM D5185m         4             Tin         ppm         ASTM D5185m         <1							
Tin							
Vanadium         ppm         ASTM D5185m         <1             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         74             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         374             Magnesium         ppm         ASTM D5185m         5             Magnesium         ppm         ASTM D5185m         47             Calcium         ppm         ASTM D5185m         51             Phosphorus         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         23521             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         ≥20         8             Potassium         ppm         ASTM D5185m         >20<	• •						
Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         74             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         374             Manganese         ppm         ASTM D5185m         5             Magnesium         ppm         ASTM D5185m         47             Calcium         ppm         ASTM D5185m         51             Phosphorus         ppm         ASTM D5185m         0             Phosphorus         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         23521             Sulfur         ppm         ASTM D5185m         230             Sodium         ppm         ASTM D5185m         22		• • •					
Boron ppm ASTM D5185m 74							
Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         374             Manganese         ppm         ASTM D5185m         5             Magnesium         ppm         ASTM D5185m         47             Calcium         ppm         ASTM D5185m         51             Phosphorus         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         23521             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         230             Sodium         ppm         ASTM D5185m         22             Potassium         ppm         ASTM D5185m         22             Potassium         ppm         ASTM D5185m         22             FLUID DEGRADATION         method         limit/base         current         his	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         374             Manganese         ppm         ASTM D5185m         5             Magnesium         ppm         ASTM D5185m         47             Calcium         ppm         ASTM D5185m         51             Phosphorus         ppm         ASTM D5185m         0             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         23521             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         22             Sodium         ppm         ASTM D5185m         >20         8             Potassium         ppm         ASTM D5185m         >20         8             FLUID DEGRADATION         method         limit/base         current         history1         history2           White Metal         scalar	Boron	ppm	ASTM D5185m		74		
Molybdenum         ppm         ASTM D5185m         374             Manganese         ppm         ASTM D5185m         5             Magnesium         ppm         ASTM D5185m         47             Calcium         ppm         ASTM D5185m         51             Phosphorus         ppm         ASTM D5185m         0             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         23521             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         22             Sodium         ppm         ASTM D5185m         >20         8             Potassium         ppm         ASTM D5185m         >20         8             FLUID DEGRADATION         method         limit/base         current         history1         history2           White Metal         scalar	Barium	ppm	ASTM D5185m		0		
Manganese         ppm         ASTM D5185m         5             Magnesium         ppm         ASTM D5185m         47             Calcium         ppm         ASTM D5185m         51             Phosphorus         ppm         ASTM D5185m         0             Zinc         ppm         ASTM D5185m         23521             Sulfur         ppm         ASTM D5185m         230             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         22             Sodium         ppm         ASTM D5185m         22             Potassium         ppm         ASTM D5185m         22             FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         2.40             VISUAL         method         limit/base         curr	Molybdenum		ASTM D5185m		374		
Magnesium         ppm         ASTM D5185m         47             Calcium         ppm         ASTM D5185m         51             Phosphorus         ppm         ASTM D5185m         1171             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         23521             Sulfur         ppm         ASTM D5185m         230             Sodium         ppm         ASTM D5185m         22             Sodium         ppm         ASTM D5185m         22             Potassium         ppm         ASTM D5185m         >20         8             FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         2.40             VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual			ASTM D5185m		5		
Calcium         ppm         ASTM D5185m         51             Phosphorus         ppm         ASTM D5185m         1171             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         23521             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         230             Sodium         ppm         ASTM D5185m         22             Potassium         ppm         ASTM D5185m         >20         8             FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOHlg         ASTM D8045         2.40             VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE             Yellow Metal	•		ASTM D5185m				
Phosphorus         ppm         ASTM D5185m         1171             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         23521             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         230             Sodium         ppm         ASTM D5185m         22             Potassium         ppm         ASTM D5185m         >20         8             FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         2.40             FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         2.40             VISUAL         method         limit/base         current         history1         history2           Whi	-		ASTM D5185m		51		
Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         23521             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         22             Sodium         ppm         ASTM D5185m         22             Potassium         ppm         ASTM D5185m         >20         8             FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         2.40             FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         2.40             VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE	Phosphorus				1171		
Sulfur         ppm         ASTM D5185m         23521             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         230             Sodium         ppm         ASTM D5185m         22             Potassium         ppm         ASTM D5185m         >20         8             FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         2.40             VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE             Yellow Metal         scalar         *Visual         NONE         NONE            Precipitate         scalar         *Visual         NONE         NONE            Silt         scalar         *Visual         NONE         NONE            Debris         scala			ASTM D5185m		0		
Silicon         ppm         ASTM D5185m         ▲ 230             Sodium         ppm         ASTM D5185m         22             Potassium         ppm         ASTM D5185m         >20         8             FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         2.40             VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Precipitate         scalar         *Visual         NONE         NONE             Silt         scalar         *Visual         NONE         NONE             Debris         scalar         *Visual         NONE         NONE             Sand/Dirt         scalar         *Visual         NORML					_		
Sodium         ppm         ASTM D5185m         22             Potassium         ppm         ASTM D5185m         >20         8             FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         2.40             VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE            Yellow Metal         scalar         *Visual         NONE         NONE            Precipitate         scalar         *Visual         NONE         NONE            Silt         scalar         *Visual         NONE         NONE            Debris         scalar         *Visual         NONE         NONE            Sand/Dirt         scalar         *Visual         NORML         NORML            Appearance         scalar         *Visual         NORML         NORML	CONTAMINANTS	3	method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         8             FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         2.40             VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE            Yellow Metal         scalar         *Visual         NONE         NONE            Precipitate         scalar         *Visual         NONE         NONE            Silt         scalar         *Visual         NONE         NONE            Debris         scalar         *Visual         NONE         NONE            Sand/Dirt         scalar         *Visual         NORML         NORML            Appearance         scalar         *Visual         NORML         NORML            Odor         scalar         *Visual         NORML         NORML            Emulsified Water	Silicon	ppm	ASTM D5185m		<b>230</b>		
FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         2.40             VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE            Yellow Metal         scalar         *Visual         NONE         NONE            Precipitate         scalar         *Visual         NONE         NONE            Silt         scalar         *Visual         NONE         NONE            Debris         scalar         *Visual         NONE         NONE            Sand/Dirt         scalar         *Visual         NORML         NORML            Appearance         scalar         *Visual         NORML         NORML            Odor         scalar         *Visual         NORML         NORML            Emulsified Water         scalar         *Visual         >0.2         NEG	Sodium	ppm	ASTM D5185m		22		
Acid Number (AN)         mg KOH/g         ASTM D8045         2.40             VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE             Yellow Metal         scalar         *Visual         NONE         NONE            Precipitate         scalar         *Visual         NONE         NONE            Silt         scalar         *Visual         NONE         NONE            Debris         scalar         *Visual         NONE         NONE            Sand/Dirt         scalar         *Visual         NORML         NORML            Appearance         scalar         *Visual         NORML         NORML            Odor         scalar         *Visual         NORML         NORML            Emulsified Water         scalar         *Visual         >0.2         NEG	Potassium	ppm	ASTM D5185m	>20	8		
VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Precipitate         scalar         *Visual         NONE         NONE             Silt         scalar         *Visual         NONE         NONE             Debris         scalar         *Visual         NONE         NONE             Sand/Dirt         scalar         *Visual         NORML         NORML             Appearance         scalar         *Visual         NORML         NORML             Codor         scalar         *Visual         NORML         NORML             Emulsified Water         scalar         *Visual         >0.2         NEG	FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Precipitate         scalar         *Visual         NONE         NONE             Silt         scalar         *Visual         NONE         NONE             Debris         scalar         *Visual         NONE         NONE             Sand/Dirt         scalar         *Visual         NORML         NORML             Appearance         scalar         *Visual         NORML         NORML             Odor         scalar         *Visual         >0.2         NEG	Acid Number (AN)	mg KOH/g	ASTM D8045		2.40		
Yellow Metal         scalar         *Visual         NONE         NONE             Precipitate         scalar         *Visual         NONE         NONE             Silt         scalar         *Visual         NONE         NONE             Debris         scalar         *Visual         NONE         NONE             Sand/Dirt         scalar         *Visual         NORM         NORML             Appearance         scalar         *Visual         NORML         NORML             Odor         scalar         *Visual         >0.2         NEG             Emulsified Water         scalar         *Visual         >0.2         NEG	VISUAL		method	limit/base	current	history1	history2
Precipitate         scalar         *Visual         NONE         NONE             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         >0.2         NEG		scalar					
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         >0.2         NEG	Yellow Metal	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         >0.2         NEG	Precipitate	scalar	*Visual	NONE	NONE		
Sand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.2NEG	Silt	scalar	*Visual	NONE	NONE		
Appearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.2NEG	Debris	scalar	*Visual	NONE	NONE		
Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.2 NEG	Sand/Dirt	scalar	*Visual	NONE	NONE		
Emulsified Water scalar *Visual >0.2 NEG	Appearance	scalar	*Visual	NORML	NORML		
	Odor	scalar	*Visual	NORML	NORML		
Free Water scalar *Visual NEG	Emulsified Water	scalar	*Visual	>0.2	NEG		
	Free Water	scalar	*Visual		NEG		



## **OIL ANALYSIS REPORT**





Certificate L2367

Sample No. Lab Number Unique Number

: 06008466

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: WC0853766

: 10742228 Test Package : IND 2

Diagnosed : 17 Nov 2023 Diagnostician : Don Baldridge

Contact: CHARLES JARRELL cjarrell@mmm.com

T:

MONCURE, NC

US 27559

F:

\* - 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)