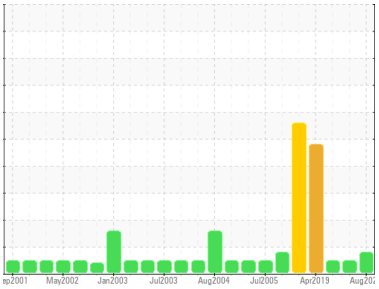
PROBLEM SUMMARY

Sample Rating Trend

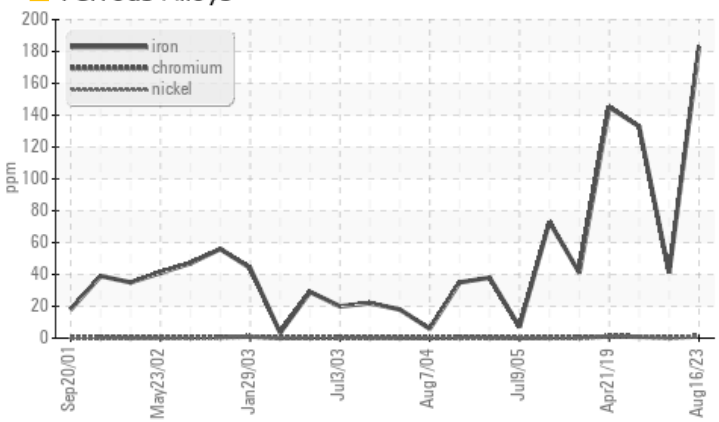


WEAR

Area
BOF/DESULF
Machine Id
D Desulph Tilt Car South drive Gearbox
Component
Gearbox
Fluid
ESSO SPARTAN EP 220 (45 GAL)

COMPONENT CONDITION SUMMARY

▲ Ferrous Alloys



RECOMMENDATION

Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ATTENTION**	NORMAL	NORMAL
Iron	ppm	ASTM D5185(m)	>200	▲ **183**	41	133

Customer Id: LEWBOSC
Sample No.: WC0850088
Lab Number: 02576229
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Kevin Marson +1 (289)291-4644 x4644
Kevin.Marson@wearcheck.com

To change component or sample information:
Gloria Gonzalez +1 (289)291-4643 x4643
gloria.gonzalez@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

26 Oct 2022 Diag: Kevin Marson

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

18 Jul 2019 Diag: Wes Davis

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

21 Apr 2019 Diag: Bill Quesnel

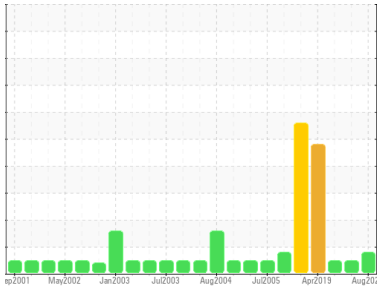
WEAR

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.PQ levels are severe. Iron ppm levels are abnormal. Gear wear is indicated. The very high ferrous density (PQ) index indicates that severe wear is occurring. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable. The AN level is acceptable for this fluid. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



WEAR

Area
BOF/DESULF
Machine Id
D Desulph Tilt Car South drive Gearbox
Component
Gearbox
Fluid
ESSO SPARTAN EP 220 (45 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Iron ppm levels are noted. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. All other component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

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		**WC0850088**	WC0756728	WC0372657
Sample Date		Client Info		**16 Aug 2023**	26 Oct 2022	18 Jul 2019
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				**ATTENTION**	NORMAL	NORMAL

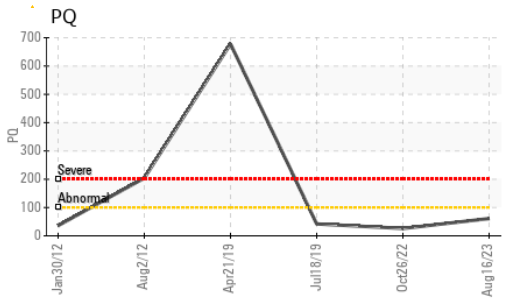
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*	>DFLT	**61**	26	42
Iron	ppm	ASTM D5185(m)	>200	▲ **183**	41	133
Chromium	ppm	ASTM D5185(m)	>15	**1**	<1	<1
Nickel	ppm	ASTM D5185(m)	>15	**<1**	<1	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**0**	0	0
Aluminum	ppm	ASTM D5185(m)	>25	**<1**	<1	<1
Lead	ppm	ASTM D5185(m)	>100	**0**	0	<1
Copper	ppm	ASTM D5185(m)	>200	**<1**	<1	<1
Tin	ppm	ASTM D5185(m)	>25	**0**	0	0
Antimony	ppm	ASTM D5185(m)	>5	**0**	<1	0
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	0

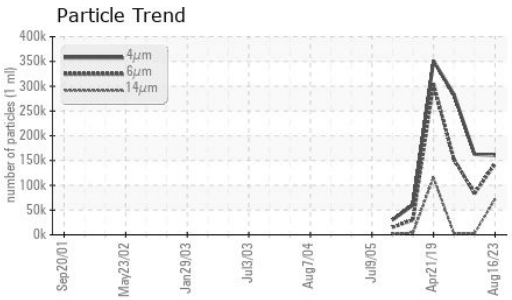
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	.5	**4**	3	4
Barium	ppm	ASTM D5185(m)		**1**	0	2
Molybdenum	ppm	ASTM D5185(m)	0	**<1**	<1	<1
Manganese	ppm	ASTM D5185(m)		**1**	<1	1
Magnesium	ppm	ASTM D5185(m)	0	**<1**	1	1
Calcium	ppm	ASTM D5185(m)	1.7	**5**	6	16
Phosphorus	ppm	ASTM D5185(m)	250	**271**	318	266
Zinc	ppm	ASTM D5185(m)	.3	**9**	7	9
Sulfur	ppm	ASTM D5185(m)		**9428**	9353	10084
Lithium	ppm	ASTM D5185(m)		**<1**	<1	0

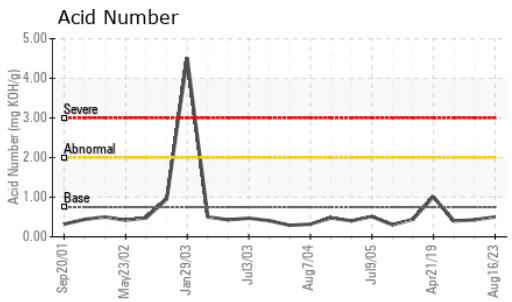
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	**4**	4	4
Sodium	ppm	ASTM D5185(m)		**<1**	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	**<1**	<1	<1

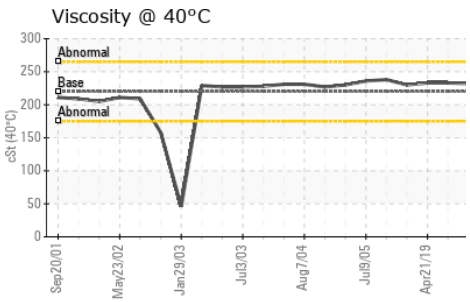
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		**160582**	162533	283469
Particles >6µm	ASTM D7647	>10240000	**143558**	83286	152071
Particles >14µm	ASTM D7647	>10240000	**72326**	2977	2575
Particles >21µm	ASTM D7647	>2560000	**34969**	580	202
Particles >38µm	ASTM D7647	>640000	**1751**	19	1
Particles >71µm	ASTM D7647	>160000	**65**	2	0
Oil Cleanliness	ISO 4406 (c)	>--/30/30	**25/24/23**	25/24/19	25/24/19

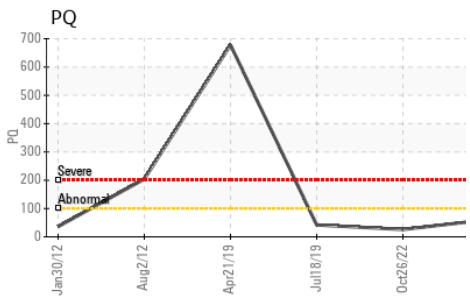
OIL ANALYSIS REPORT











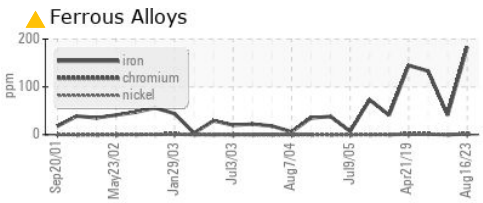
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.75	**0.50**	0.43	0.400

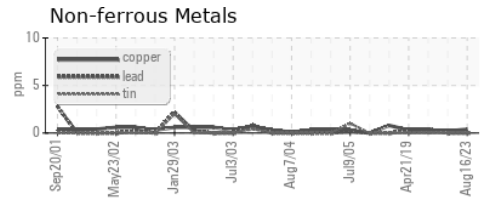
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**VLITE**	NONE	LIGHT
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**VLITE**	NONE	NONE
Debris	scalar	Visual*	NONE	**VLITE**	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	**NONE**	NONE	VLITE
Appearance	scalar	Visual*	NORML	**NORML**	NORML	NORML
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>5	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

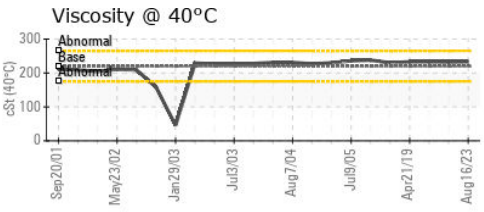
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	220	**233**	232	233

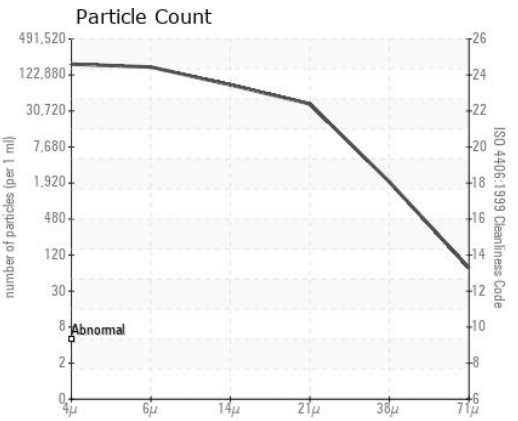
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

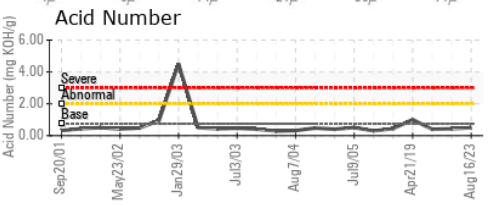
GRAPHS











ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **STELCO - BOSC - Basic Oxygen Slab Caster**
Sample No. : WC0850088 **Received** : 16 Aug 2023 2330 Regional Road #3, Door: BOSC8
Lab Number : 02576229 **Diagnosed** : 21 Aug 2023 NANTICOKE, ON
Unique Number : 5629289 **Diagnostician** : Kevin Marson CA N0A 1L0
Test Package : IND 2 (Additional Tests: PQ, PrtCount, TAN Man) Contact: Tom Walden

To discuss this sample report, contact Customer Service at 1-800-268-2131. Thomas.Walden@stelco.com
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (519)587-4541
Validity of results and interpretation are based on the sample and information as supplied. F: (519)587-7702