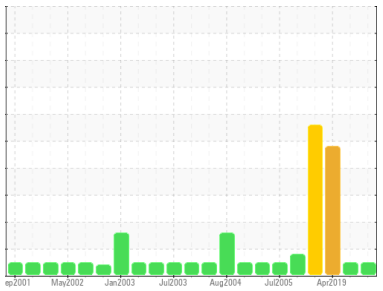
OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL

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
All 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		**WC0756728**	WC0372657	WC02273720
Sample Date		Client Info		**26 Oct 2022**	18 Jul 2019	21 Apr 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				**NORMAL**	NORMAL	SEVERE

WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*	>DFLT	**26**	42	678
Iron	ppm	ASTM D5185(m)	>200	**41**	133	145
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**	<1	<1
Copper	ppm	ASTM D5185(m)	>200	**<1**	<1	<1
Tin	ppm	ASTM D5185(m)	>25	**0**	0	0
Antimony	ppm	ASTM D5185(m)		**<1**	0	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	**3**	4	4
Barium	ppm	ASTM D5185(m)		**0**	2	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	**6**	16	3
Phosphorus	ppm	ASTM D5185(m)	250	**318**	266	281
Zinc	ppm	ASTM D5185(m)	.3	**7**	9	8
Sulfur	ppm	ASTM D5185(m)		**9353**	10084	10082
Lithium	ppm	ASTM D5185(m)		**<1**	0	0

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	**4**	4	8
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		**162533**	283469	351273
Particles >6µm		ASTM D7647	>10240000	**83286**	152071	304248
Particles >14µm		ASTM D7647	>10240000	**2977**	2575	115877
Particles >21µm		ASTM D7647	>2560000	**580**	202	41031
Particles >38µm		ASTM D7647	>640000	**19**	1	395
Particles >71µm		ASTM D7647	>160000	**2**	0	13
Oil Cleanliness		ISO 4406 (c)	>--/30/30	**25/24/19**	25/24/19	26/25/24

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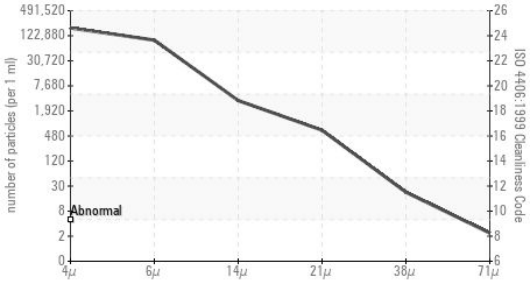
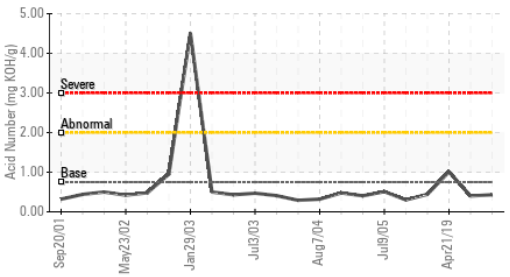
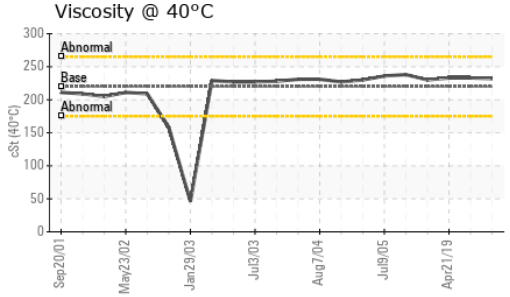
Particle Count



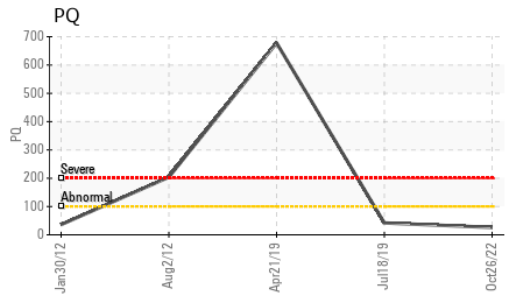
Acid Number



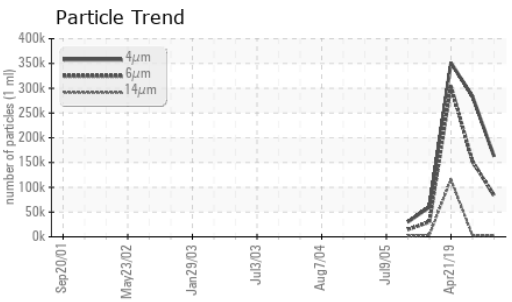
Viscosity @ 40°C



PQ



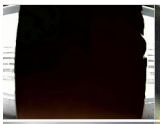
Particle Trend



FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.75	**0.43**	0.400	1.01

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	LIGHT
Debris	scalar	Visual*	NONE	**NONE**	NONE	LIGHT
Sand/Dirt	scalar	Visual*	NONE	**NONE**	VLITE	NONE
Appearance	scalar	Visual*	NORML	**NORML**	NORML	NORML
Odor	scalar	Visual*	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	Visual*	>5	**NEG**	NEG	.2%
Free Water	scalar	Visual*		**NEG**	NEG	.2%

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

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

ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0756728
Lab Number : 02518988
Unique Number : 5475968
Test Package : IND 2 (Additional Tests: PrtCount, TAN Man)

Received : 26 Oct 2022
Diagnosed : 27 Oct 2022
Diagnostician : Kevin Marson

To discuss this sample report, contact Customer Service at 1-800-268-2131.
Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
Validity of results and interpretation are based on the sample and information as supplied.

STELCO - BOSC - Basic Oxygen Slab Caster
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Report Id: LEWBOSC [WCAMIS] 02518988 (Generated: 07/13/2023 10:23:36) Rev: 1

Submitted By: Bob Melanson