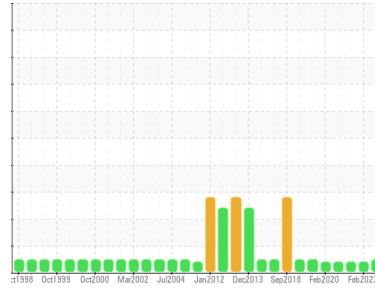




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
Caster/Segment Drives
 Machine Id
B - Strand 2 - 2 Gear Box Roll # 60 Top
 Component
Gearbox
 Fluid
SHELL OMALA 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	WC0866321	WC0796851	WC0743650
Sample Date	Client Info	04 Oct 2023	28 Feb 2023	13 Sep 2022
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	ABNORMAL	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2		
PQ	ASTM D8184*	>DFLT	1	5	0	
Iron	ppm	ASTM D5185(m)	>200	47	22	16
Chromium	ppm	ASTM D5185(m)	>15	<1	0	0
Nickel	ppm	ASTM D5185(m)	>15	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		<1	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	0
Tin	ppm	ASTM D5185(m)	>25	0	0	0
Antimony	ppm	ASTM D5185(m)	>5	0	0	<1
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)	4.4	4	17	18
Barium	ppm	ASTM D5185(m)	0.0	<1	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)		<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	0	<1	<1	<1
Calcium	ppm	ASTM D5185(m)	0	4	<1	2
Phosphorus	ppm	ASTM D5185(m)	215	215	348	339
Zinc	ppm	ASTM D5185(m)	0	4	2	2
Sulfur	ppm	ASTM D5185(m)	7039	7796	14805	14507
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

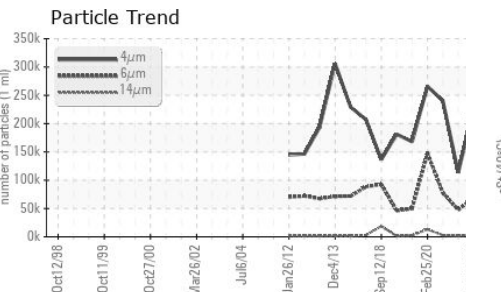
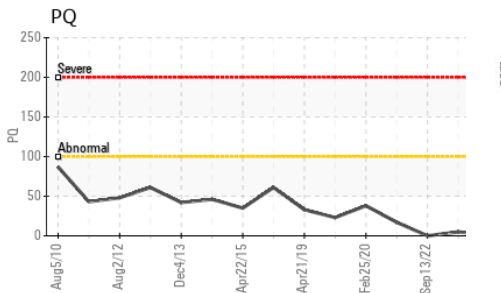
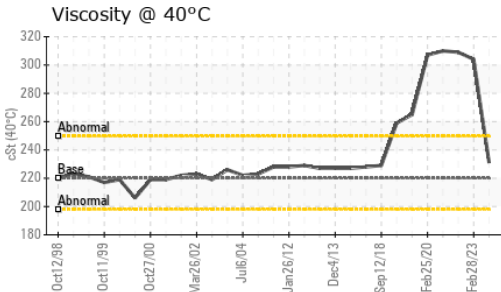
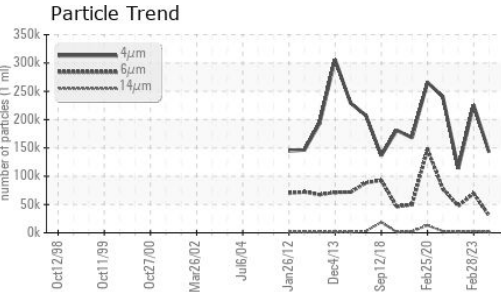
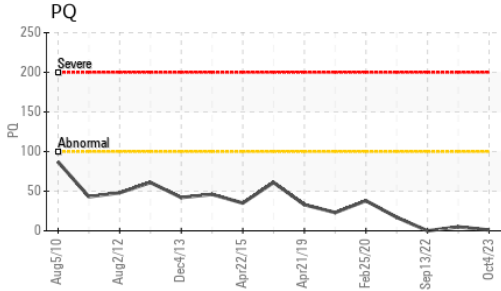
method	limit/base	current	history1	history2		
Silicon	ppm	ASTM D5185(m)	>50	4	<1	2
Sodium	ppm	ASTM D5185(m)		1	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	0	<1	<1

FLUID CLEANLINESS

method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647		142488	225901	113508
Particles >6µm	ASTM D7647	>10240000	30452	69426	47318
Particles >14µm	ASTM D7647	>10240000	1477	2564	1636
Particles >21µm	ASTM D7647	>2560000	366	670	277
Particles >38µm	ASTM D7647	>640000	13	18	3
Particles >71µm	ASTM D7647	>160000	1	1	0
Oil Cleanliness	ISO 4406 (c)	>--/30/30	24/22/18	25/23/19	24/23/18



OIL ANALYSIS REPORT

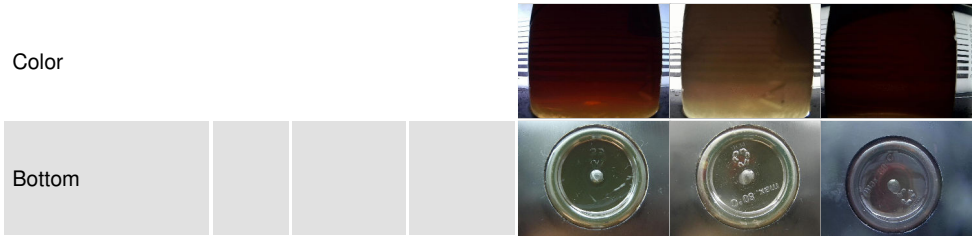


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		0.57	0.71	0.60

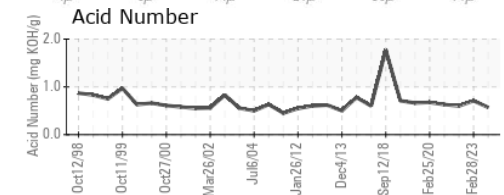
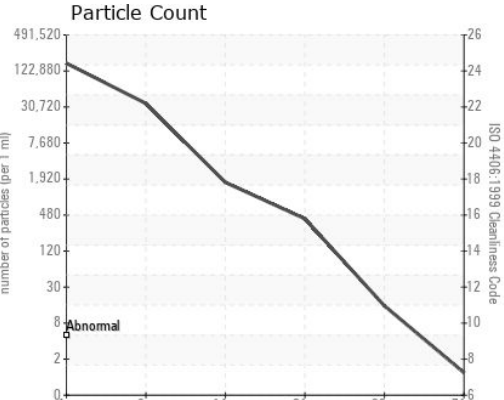
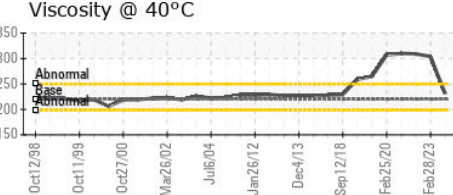
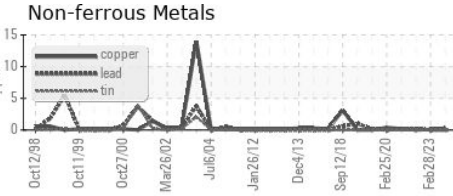
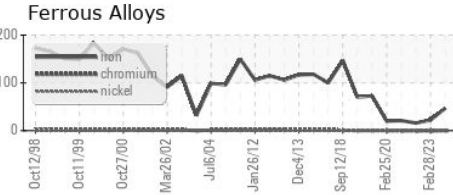
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	VLITE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	VLITE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
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	231	▲ 304	▲ 309

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **STELCO - BOSC - Basic Oxygen Slab Caster**
Sample No. : WC0866321 **Received** : 04 Oct 2023 2330 Regional Road #3, Door: BOSC8
Lab Number : 02586919 **Diagnosed** : 05 Oct 2023 NANTICOKE, ON
Unique Number : 5655985 **Diagnostician** : Wes Davis CA N0A 1L0
Test Package : IND 2 (Additional Tests: PQ, PrtCount, TAN Man)
 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.

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 Thomas.Walden@stelco.com
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 F: (519)587-7702