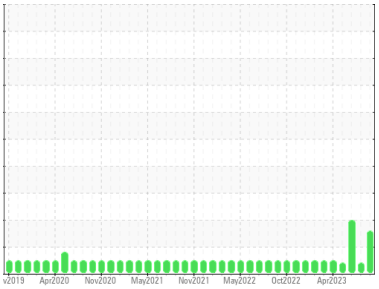
PROBLEM SUMMARY

Sample Rating Trend

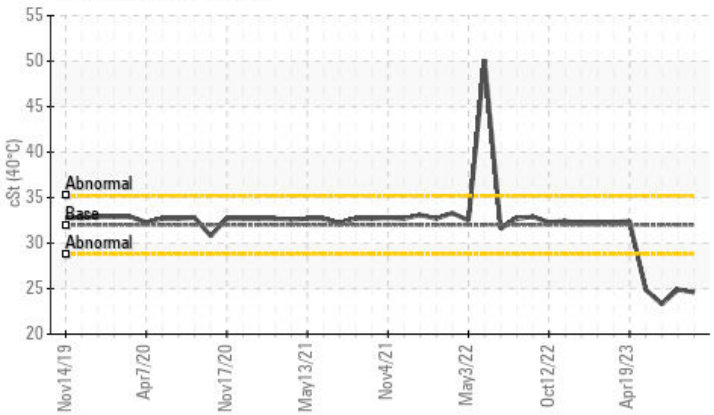


VISCOSITY

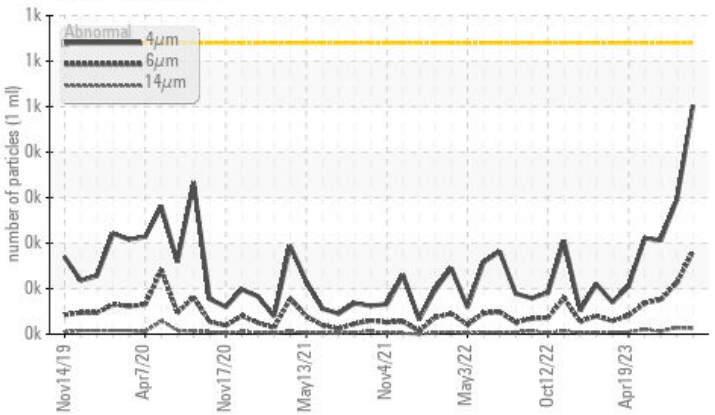
Area
Direct Strip Mill/Caster
Machine Id
#2 COMPRESSOR (DSC187) (S/N 1000029210)
Component
Compressor
Fluid
COMPRESSOR OIL ISO 32 (--- GAL)

COMPONENT CONDITION SUMMARY

Viscosity @ 40°C



Particle Trend



RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL
Particles >6µm		ASTM D7647	>160	▲ **182**	113	76
Particles >14µm		ASTM D7647	>10	▲ **13**	14	6
Oil Cleanliness		ISO 4406 (c)	>16/14/10	▲ **16/15/11**	15/14/11	15/13/10
Visc @ 40°C	cSt	ASTM D7279(m)	32	▲ **24.6**	▲ 24.9	▲ 23.3

Customer Id: ALGSSM
Sample No.: WC0837307
Lab Number: 02586134
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

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Information Required	---	---	?	Please specify the brand, type, and viscosity of the oil on your next sample.

HISTORICAL DIAGNOSIS

09 Aug 2023 Diag: Kevin Marson

VISCOSITY

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable. Viscosity of sample indicates oil is within ISO 22 range, advise investigate. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

22 Jun 2023 Diag: Kevin Marson

WATER

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. The oil is near the end of it`s useful service life, recommend schedule an oil change. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you use off-line filtration with water adsorbent filters to attempt to remove the water from this oil. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.All component wear rates are normal. There is a moderate concentration of water present in the oil. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. Barium ppm levels are abnormally high. Sulfur ppm levels are abnormally low. Visc @ 40°C is abnormally low. Viscosity of sample indicates oil is within ISO 22 range, advise investigate. The AN level is acceptable for this fluid.

view report

16 May 2023 Diag: Kevin Marson

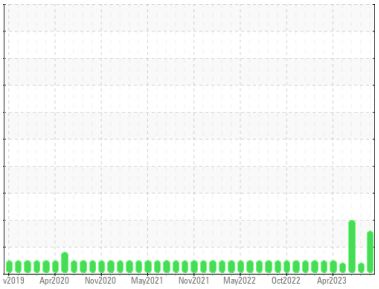
VISCOSITY

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable. Viscosity of sample indicates oil is within ISO 22 range, advise investigate. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY

Area
Direct Strip Mill/Caster
Machine Id
#2 COMPRESSOR (DSC187) (S/N 1000029210)
Component
Compressor
Fluid
COMPRESSOR OIL ISO 32 (--- GAL)

DIAGNOSIS

Recommendation
We recommend you service the filters on this component. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear
All component wear rates are normal.

Contamination
There is a light amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

Fluid Condition
Viscosity of sample indicates oil is within ISO 22 range, advise investigate. 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		**WC0837307**	WC0813759	WC0813702
Sample Date		Client Info		**27 Sep 2023**	09 Aug 2023	22 Jun 2023
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				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>50	**<1**	<1	<1
Chromium	ppm	ASTM D5185(m)	>10	**0**	0	0
Nickel	ppm	ASTM D5185(m)		**0**	0	<1
Titanium	ppm	ASTM D5185(m)		**0**	0	0
Silver	ppm	ASTM D5185(m)		**<1**	0	0
Aluminum	ppm	ASTM D5185(m)	>25	**0**	<1	<1
Lead	ppm	ASTM D5185(m)	>25	**<1**	0	0
Copper	ppm	ASTM D5185(m)	>50	**<1**	0	0
Tin	ppm	ASTM D5185(m)	>15	**0**	0	0
Antimony	ppm	ASTM D5185(m)		**0**	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

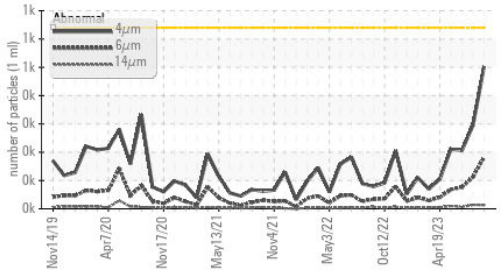
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	5	**<1**	2	<1
Barium	ppm	ASTM D5185(m)	5	**410**	481	408
Molybdenum	ppm	ASTM D5185(m)	5	**0**	0	0
Manganese	ppm	ASTM D5185(m)		**0**	0	0
Magnesium	ppm	ASTM D5185(m)	5	**0**	0	<1
Calcium	ppm	ASTM D5185(m)	5	**2**	2	1
Phosphorus	ppm	ASTM D5185(m)	150	**14**	13	12
Zinc	ppm	ASTM D5185(m)	5	**1**	2	2
Sulfur	ppm	ASTM D5185(m)	5000	**224**	286	212
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**1**	2	1
Sodium	ppm	ASTM D5185(m)		**2**	<1	1
Potassium	ppm	ASTM D5185(m)	>20	**0**	<1	<1
Water	%	ASTM D6304*	>0.1	**0.082**	0.065	▲ 0.120
ppm Water	ppm	ASTM D6304*	>1000	**829.3**	654.3	▲ 1204.9

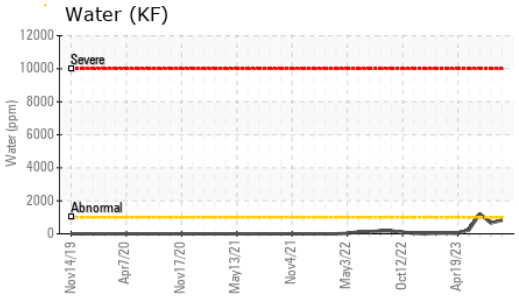
FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>640	**502**	295	206
Particles >6µm		ASTM D7647	>160	▲ **182**	113	76
Particles >14µm		ASTM D7647	>10	▲ **13**	14	6
Particles >21µm		ASTM D7647	>3	**4**	5	3
Particles >38µm		ASTM D7647	>3	**0**	0	1
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>16/14/10	▲ **16/15/11**	15/14/11	15/13/10

OIL ANALYSIS REPORT

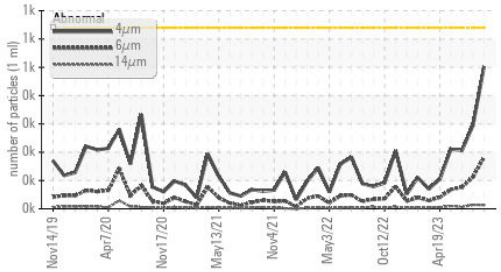
Particle Trend



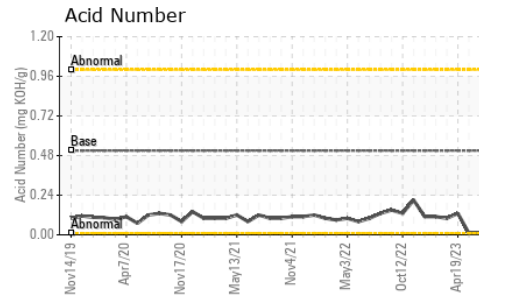
Water (KF)



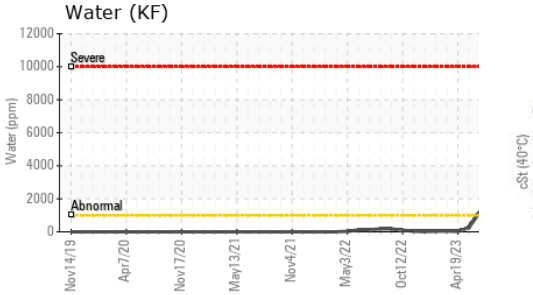
Particle Trend



Acid Number



Water (KF)

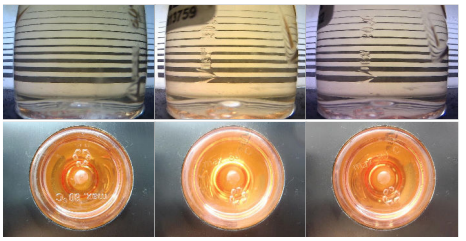


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.51	**0.01**	0.01	0.01

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**	NONE	NONE
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	**NONE**	NONE	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*	>0.1	**NEG**	NEG	NEG
Free Water	scalar	Visual*		**NEG**	NEG	NEG

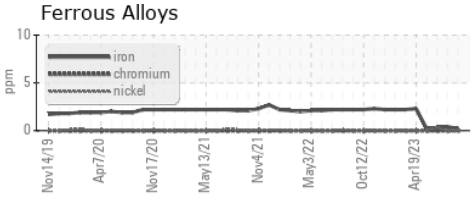
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	32	▲ **24.6**	▲ 24.9	▲ 23.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

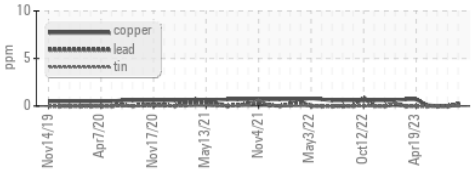


GRAPHS

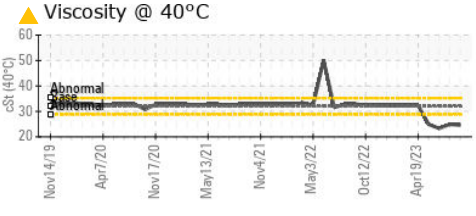
Ferrous Alloys



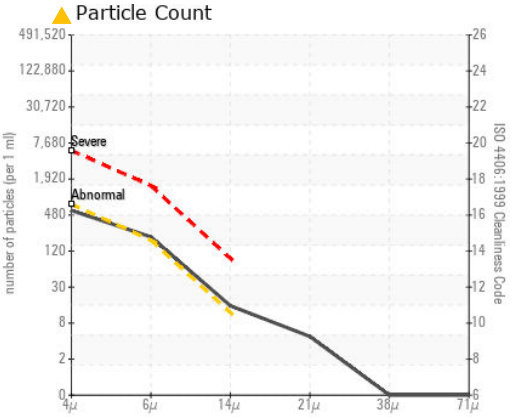
Non-ferrous Metals



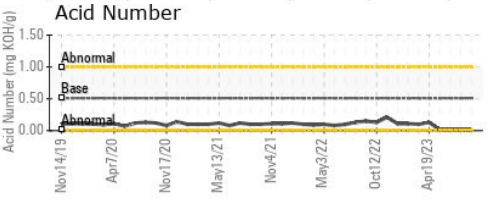
Viscosity @ 40°C



Particle Count



Acid Number



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **ALGOMA STEEL INC. - STORES DEPT.**
Sample No. : WC0837307 **Received** : 02 Oct 2023
Lab Number : 02586134 **Diagnosed** : 04 Oct 2023
Unique Number : 5655200 **Diagnostician** : Kevin Marson
Test Package : IND 2 (Additional Tests: KF, PrtCount)

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SAULT STE MARIE, ON
CA P6C 1K8
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algomareliability@algoma.com
T: (705)206-1059
F: (705)945-3585

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.