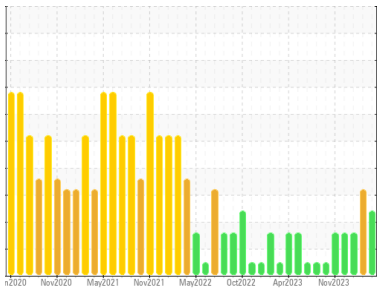
OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Area
Direct Strip Mill/Finishing
Machine Id
PL3-F1 TO F4 MORGOIL SYSTEM (DSC018) (S/N 1000016957)
Component
Gear Lube System
Fluid
GEAR OIL ISO 680 (25000 LTR)

DIAGNOSIS

Recommendation

We advise that you check for the source of water entry. Check seals and/or filters for points of contaminant entry. 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 you service the filters on this component. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

Wear

Component wear rates appear to be normal (unconfirmed).

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil. There is a moderate concentration of water present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**WC0931100**	WC0837485	WC0837546
Sample Date		Client Info		**11 Jun 2024**	16 Apr 2024	28 Feb 2024
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)	>150	**105**	96	88
Chromium	ppm	ASTM D5185(m)	>10	**<1**	<1	<1
Nickel	ppm	ASTM D5185(m)	>10	**<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	0
Copper	ppm	ASTM D5185(m)	>50	**<1**	<1	<1
Tin	ppm	ASTM D5185(m)	>10	**2**	2	2
Antimony	ppm	ASTM D5185(m)	>5	**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)	50	**2**	2	2
Barium	ppm	ASTM D5185(m)	15	**0**	0	0
Molybdenum	ppm	ASTM D5185(m)	15	**0**	0	0
Manganese	ppm	ASTM D5185(m)		**<1**	<1	0
Magnesium	ppm	ASTM D5185(m)	50	**<1**	<1	<1
Calcium	ppm	ASTM D5185(m)	50	**2**	3	4
Phosphorus	ppm	ASTM D5185(m)	350	**160**	156	168
Zinc	ppm	ASTM D5185(m)	100	**3**	6	5
Sulfur	ppm	ASTM D5185(m)	12500	**8306**	8189	9419
Lithium	ppm	ASTM D5185(m)		**<1**	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>50	**1**	3	2
Sodium	ppm	ASTM D5185(m)		**4**	4	4
Potassium	ppm	ASTM D5185(m)	>20	**2**	2	2
Water	%	ASTM D6304*	>0.1	**0.561**	0.150	0.262
ppm Water	ppm	ASTM D6304*	>1000	**5617**	1503	2626

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>640000	**385985**	391969	335494
Particles >6µm		ASTM D7647	>160000	**172912**	163191	133190
Particles >14µm		ASTM D7647	>40000	**4308**	3778	3023
Particles >21µm		ASTM D7647	>10000	**474**	380	358
Particles >38µm		ASTM D7647	>2500	**9**	5	6
Particles >71µm		ASTM D7647	>640	**1**	1	0
Oil Cleanliness		ISO 4406 (c)	>26/24/22	**26/25/19**	26/25/19	26/24/19

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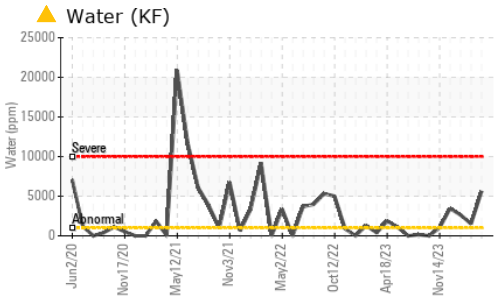
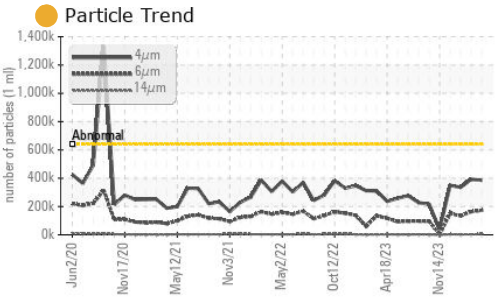
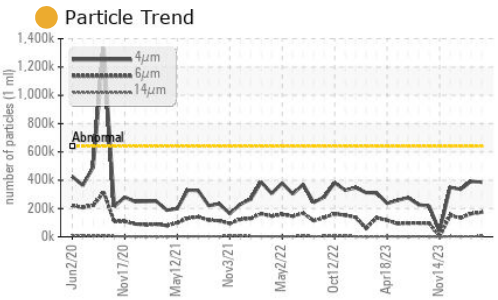
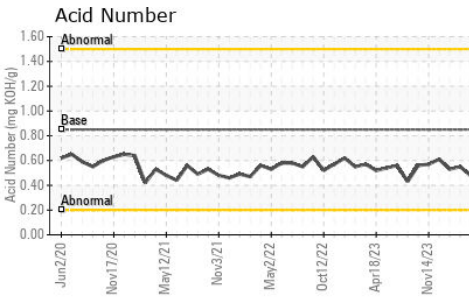
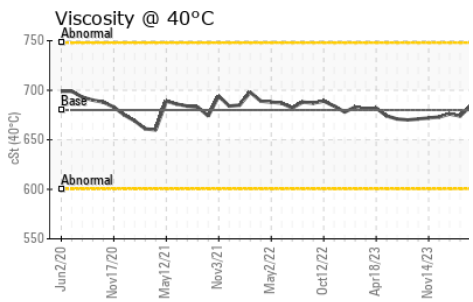










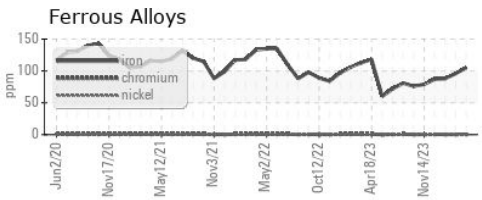
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.85	**0.48**	0.55	0.53

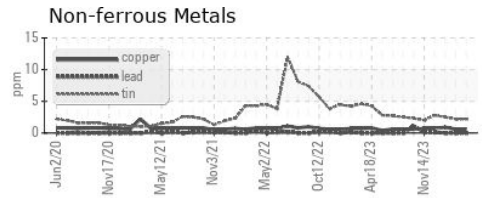
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	**NONE**	NONE	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	NONE	NONE
Silt	scalar	Visual*	NONE	**NONE**	NONE	NONE
Debris	scalar	Visual*	NONE	**NONE**	NONE	NONE
Sand/Dirt	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	▲ **.5%**	▲ .2%	▲ .2%
Free Water	scalar	Visual*		**NEG**	NEG	NEG

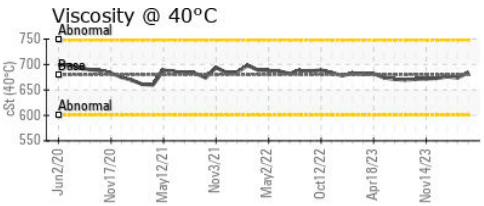
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	680	**684**	674	676

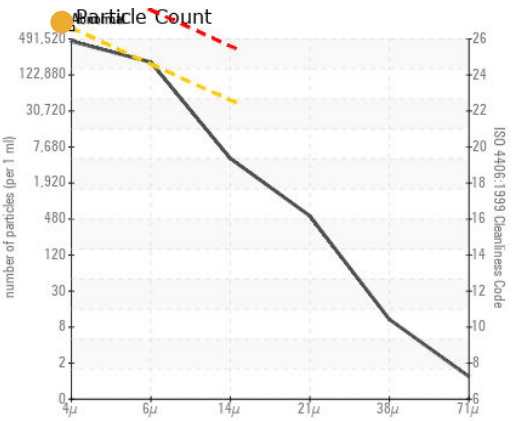
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

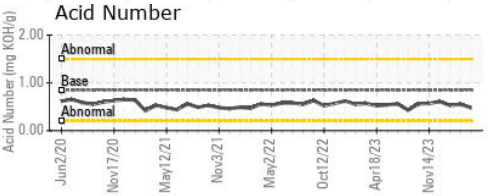
GRAPHS











ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0931100
Lab Number : 02642110
Unique Number : 5799649
Test Package : IND 2 (Additional Tests: KF, TAN Man)

Received : 14 Jun 2024
Tested : 17 Jun 2024
Diagnosed : 17 Jun 2024 - 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.

ALGOMA STEEL INC. - STORES DEPT.
301 WALLACE TERRACE
SAULT STE MARIE, ON
CA P6C 1K8
Contact: Algoma Reliability
algomareliability@algoma.com
T: (705)206-1059
F: (705)945-3585