

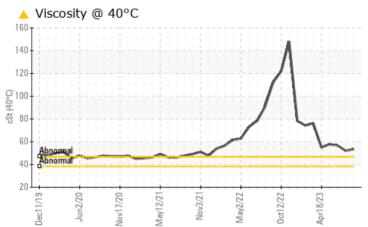
PROBLEM SUMMARY

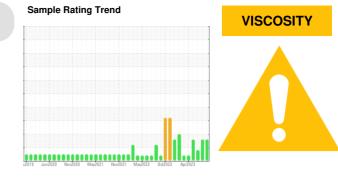
Area **Direct Strip Mill/Finishing** Machine Id **BRICMONT FURNACE HYDRAULIC SYSTEM (DSC015) (S/N 1000020510)** Component

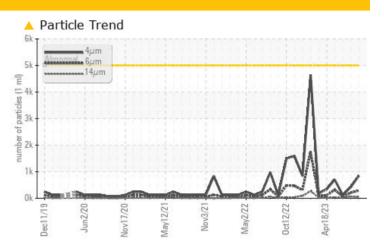
Hydraulic System

HOUGHTON HOUGHTO-SAFE 620 (--- GAL)

COMPONENT CONDITION SUMMARY







RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please note that this is a corrected copy for data entry updates.

PROBLEMATIC TEST RESULTS

THOBELMATIO	LOTITE	00210				
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
Particles >14µm		ASTM D7647	>40	<u> </u>	6 7	26
Particles >21µm		ASTM D7647	>10	<u> </u>	A 39	1 5
Oil Cleanliness		ISO 4406 (c)	>19/16/12	<u> </u>	🔺 16/15/13	14/13/12
Visc @ 40°C	cSt	ASTM D7279(m)		6 53.4	5 2.0	▲ 56.7

Customer Id: ALGSSM Sample No.: WC0837459 Lab Number: 02586214 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 <u>Kevin.Marson@wearcheck.com</u>

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			?	NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.		

HISTORICAL DIAGNOSIS



08 Aug 2023 Diag: Kevin Marson

We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.All component wear rates are normal. There is a moderate amount of particulates (2 to 100 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code. Viscosity of sample indicates oil is within ISO 46 range, advise investigate. The AN level is acceptable for this fluid. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable. The water concentration level is acceptable for this fluid. The condition of the oil is suitable for further service.



view report

21 Jun 2023 Diag: Kevin Marson



We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. Viscosity of sample indicates oil is within ISO 46 range, advise investigate. The AN level is acceptable for this fluid. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable. The water concentration level is acceptable for this fluid. The condition of the oil is suitable for further service.

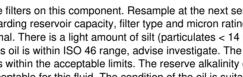
15 May 2023 Diag: Kevin Marson



We recommend you service the filters on this component. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. Viscosity of sample indicates oil is within ISO 68 range, advise investigate. The AN level is acceptable for this fluid. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable. The water concentration level is acceptable for this fluid.









OIL ANALYSIS REPORT

Area **Direct Strip Mill/Finishing** Machine Id **BRICMONT FURNACE HYDRAULIC SYSTEM (DSC015) (S/N 1000020510)** Component

Hydraulic System

HOUGHTON HOUGHTO-SAFE 620 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please note that this is a corrected copy for data entry updates.

Wear

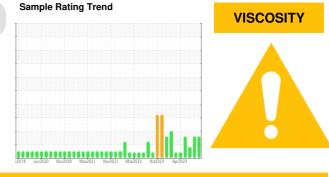
All component wear rates are normal.

Contamination

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

Fluid Condition

Viscosity of sample indicates oil is within ISO 46 range, advise investigate. The AN level is acceptable for this fluid. The pH level of this fluid is within the acceptable limits. The reserve alkalinity of this fluid is acceptable. The water concentration level is acceptable for this fluid. The condition of the oil is suitable for further service.



Sample Date Image Client Info 26 Sep 2023 08 Aug 2023 21 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 N/A Sample Status Imatibase current history1 history2 Iron ppm ASTM D5185(m) >40 0 0 <1 Nickel ppm ASTM D5185(m) >40 0 0 <1 Nickel ppm ASTM D5185(m) >40 0 0 0 Silver ppm ASTM D5185(m) >40 0 0 0 Lead ppm ASTM D5185(m) >60 0 0 0 Vanadium ppm ASTM D5185(m) >60 0 0 0 Silver ppm ASTM D5185(m) <60 0 0 0 Lea	SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
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Chromium ppm ASTM D5185(m) >4 0 0 <1	WEAR METALS		method	limit/base	current	history1	history2
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Titanium ppm ASTM D5185(m) <1 0 0 0 Silver ppm ASTM D5185(m) <1	Chromium	ppm	ASTM D5185(m)	>4	0	0	<1
Silver ppm ASTM D5185(m) <1 <1 0 Aluminum ppm ASTM D5185(m) >4 0 0 0 Lead ppm ASTM D5185(m) >10 0 0 0 Copper ppm ASTM D5185(m) >60 0 6 1 Tin ppm ASTM D5185(m) >4 0 0 0 Antimony ppm ASTM D5185(m) 0 0 0 0 Vanadium ppm ASTM D5185(m) 0 0 0 0 Cadmium ppm ASTM D5185(m) 0 0 0 0 ADDITIVES method limit/base current history1 history2 Barium ppm ASTM D5185(m) <11	Nickel	ppm	ASTM D5185(m)	>20	0	0	0
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Particles >6μm ASTM D7647 >640 293 211 67	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Water ppm Water	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	>20 >20 >43.5 >435000	<1 0 0 <1 0 0 0 38 <1 current <1 10 <1 34.1 341000	1 0 0 3 2 0 57 <1 history1 0 15 22 37.1 371000	0 <1 0 <1 <1 <1 0 6 <1 history2 0 26 10 36.0 360000
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ASTM D7647 >10

ASTM D7647 >3

ASTM D7647 >3

Particles >21µm

Particles >38µm

Particles >71µm

Oil Cleanliness

Contact/Location: Maintenance Technology - Algoma Reliability - ALGSSM

39

4

0

▲ 16/15/13

19

2

2

ISO 4406 (c) >19/16/12 🔺 17/15/13

14/13/12

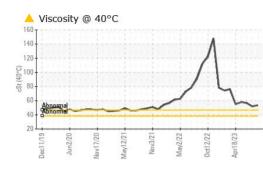
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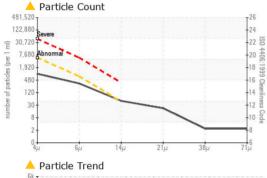
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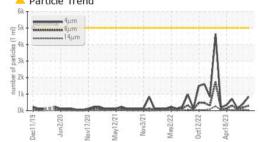
2



OIL ANALYSIS REPORT



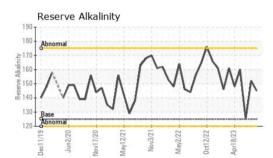


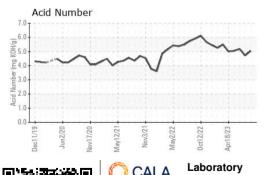


FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		5.04	4.72	5.18
Alkiline Reserve (Oils)	ml KOH/g	ASTM D1121*	125	145	152	125
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	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	FRGLY	FRGLY	FRGLY
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>43.5	>10%	>10%	>10%
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
рН	Scale 0-14	ASTM D1287*		9.31	9.57	9.30
Visc @ 40°C	cSt	ASTM D7279(m)	4	53.4	▲ 52.0	▲ 56.7
SAMPLE IMAGES	3	method	limit/base	current	history1	history2









: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 ALGOMA STEEL INC. - STORES DEPT. CALA Sample No. : WC0837459 Received : 02 Oct 2023 301 WALLACE TERRACE Lab Number : 02586214 Diagnosed : 13 Oct 2023 SAULT STE MARIE, ON ISO 17025:2017 Accredited Laboratory Unique Number : 5655280 Diagnostician : Kevin Marson CA P6C 1K8 Test Package : IND 2 (Additional Tests: KF, pH, ReserveAlk, TAN Man) Contact: Algoma Reliability To discuss this sample report, contact Customer Service at 1-800-268-2131. algomareliability@algoma.com Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: (705)206-1059 Validity of results and interpretation are based on the sample and information as supplied. F: (705)945-3585

Contact/Location: Maintenance Technology - Algoma Reliability - ALGSSM