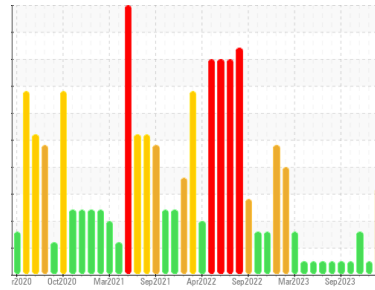




# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



Area  
**DIRECT STRIP MILL/FINISHING**  
 Machine Id  
**PL8 ROLL BITE LUBE SYSTEM (DSC023) (S/N 1000017405)**  
 Component  
**Gear Lube System**  
 Fluid  
**{not provided} (2000 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 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 moderate concentration of water present in the oil. The system cleanliness is acceptable for your target ISO 4406 cleanliness code.

### Fluid Condition

The AN level is above the recommended limit. Viscosity of sample indicates oil is within SAE 80 range, advise investigate. The oil is no longer serviceable.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>WC0780542</b>	WC0837551	WC0837582
Sample Date	Client Info	<b>18 Apr 2024</b>	28 Feb 2024	18 Jan 2024
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	NORMAL	ABNORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >150	<b>45</b>	14	17
Chromium	ppm	ASTM D5185(m) >10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m) >10	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185(m) >25	<b>4</b>	<1	<1
Lead	ppm	ASTM D5185(m) >100	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m) >50	<b>2</b>	<1	<1
Tin	ppm	ASTM D5185(m) >10	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m) >5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Beryllium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185(m)	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	<b>4</b>	<1	1
Barium	ppm	ASTM D5185(m)	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185(m)	<b>2</b>	<1	2
Calcium	ppm	ASTM D5185(m)	<b>37</b>	<1	3
Phosphorus	ppm	ASTM D5185(m)	<b>1104</b>	1	3
Zinc	ppm	ASTM D5185(m)	<b>26</b>	<1	3
Sulfur	ppm	ASTM D5185(m)	<b>16667</b>	11438	11684
Lithium	ppm	ASTM D5185(m)	<b>&lt;1</b>	<1	<1

## CONTAMINANTS

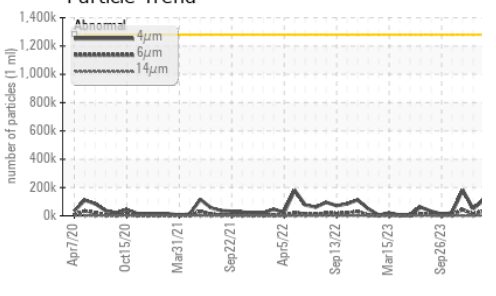
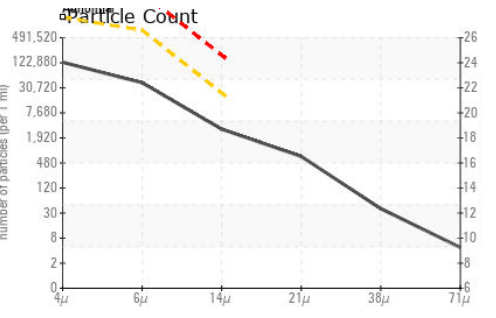
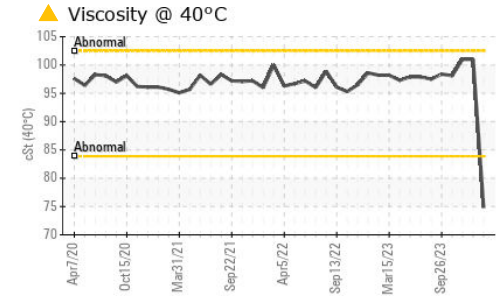
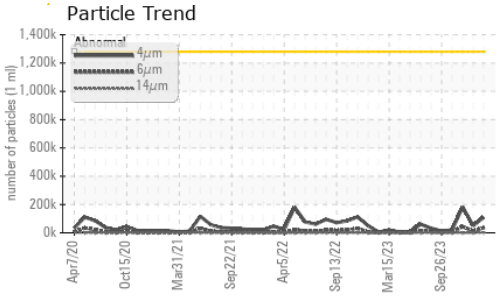
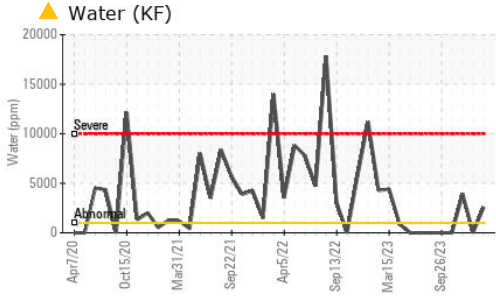
method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m) >50	<b>45</b>	<1	<1
Sodium	ppm	ASTM D5185(m)	<b>6</b>	2	2
Potassium	ppm	ASTM D5185(m) >20	<b>24</b>	<1	<1
Water	%	ASTM D6304* >0.1	<b>▲ 0.256</b>	---	▲ 0.394
ppm Water	ppm	ASTM D6304* >1000	<b>▲ 2568</b>	---	▲ 3941

## FLUID CLEANLINESS

method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647	>1280000	<b>109001</b>	49993	182927
Particles >6µm	ASTM D7647	>640000	<b>35182</b>	12623	44243
Particles >14µm	ASTM D7647	>20000	<b>2727</b>	243	1023
Particles >21µm	ASTM D7647	>5000	<b>606</b>	28	137
Particles >38µm	ASTM D7647	>1300	<b>34</b>	2	2
Particles >71µm	ASTM D7647	>320	<b>4</b>	1	0
Oil Cleanliness	ISO 4406 (c)	>27/26/21	<b>24/22/19</b>	23/21/15	25/23/17



# OIL ANALYSIS REPORT



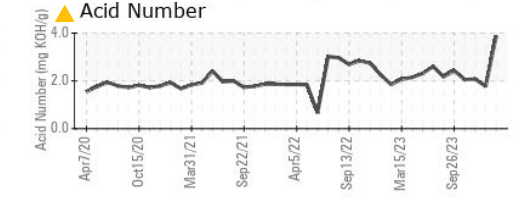
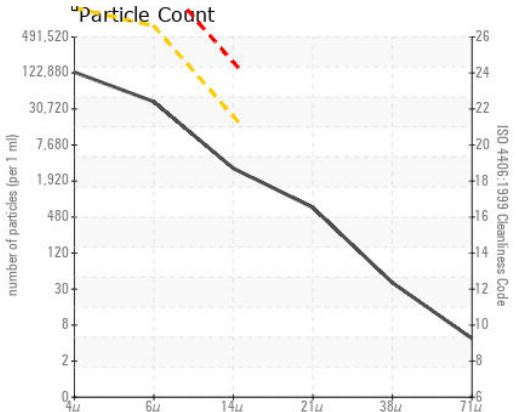
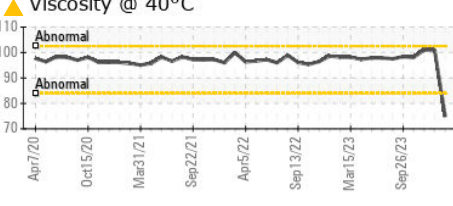
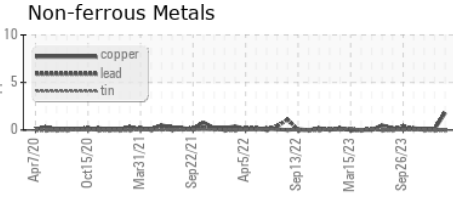
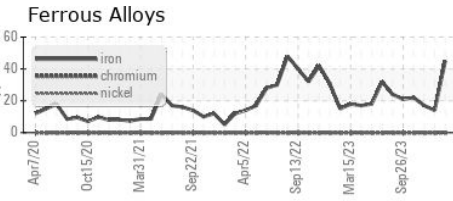
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*		▲ 3.87	1.77	2.08

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	VLITE
Debris	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	▲ .2%	NEG	.2%
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)		▲ 74.8	101	101

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						

## GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0780542  
**Lab Number** : 02630761  
**Unique Number** : 5763893  
**Test Package** : IND 2 ( Additional Tests: KF, TAN MAN )

**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

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.