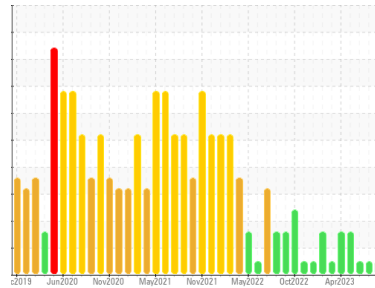




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



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

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

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	<b>WC0837462</b>	WC0780840	WC0813689
Sample Date	Client Info	<b>26 Sep 2023</b>	08 Aug 2023	21 Jun 2023
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>NORMAL</b>	NORMAL	NORMAL

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m) >150	<b>76</b>	81	72
Chromium	ppm	ASTM D5185(m) >10	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185(m) >10	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185(m)	<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)	<b>&lt;1</b>	0	0
Aluminum	ppm	ASTM D5185(m) >25	<b>&lt;1</b>	1	<1
Lead	ppm	ASTM D5185(m) >100	<b>1</b>	0	0
Copper	ppm	ASTM D5185(m) >50	<b>&lt;1</b>	<1	<1
Tin	ppm	ASTM D5185(m) >10	<b>2</b>	2	3
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) 50	<b>1</b>	1	1
Barium	ppm	ASTM D5185(m) 15	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m) 15	<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185(m)	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185(m) 50	<b>&lt;1</b>	<1	<1
Calcium	ppm	ASTM D5185(m) 50	<b>4</b>	3	3
Phosphorus	ppm	ASTM D5185(m) 350	<b>194</b>	215	217
Zinc	ppm	ASTM D5185(m) 100	<b>7</b>	7	7
Sulfur	ppm	ASTM D5185(m) 12500	<b>8810</b>	8592	8537
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>3</b>	3	2
Sodium	ppm	ASTM D5185(m)	<b>3</b>	2	2
Potassium	ppm	ASTM D5185(m) >20	<b>1</b>	<1	<1

## FLUID CLEANLINESS

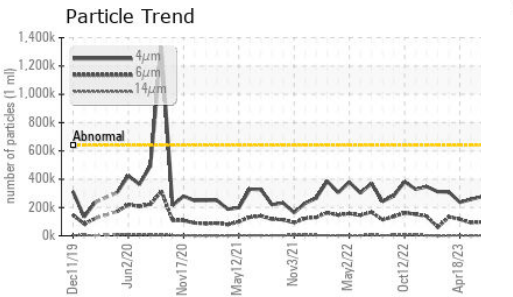
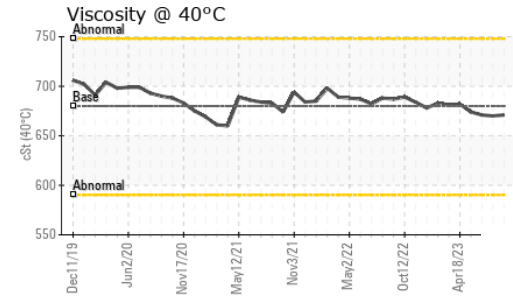
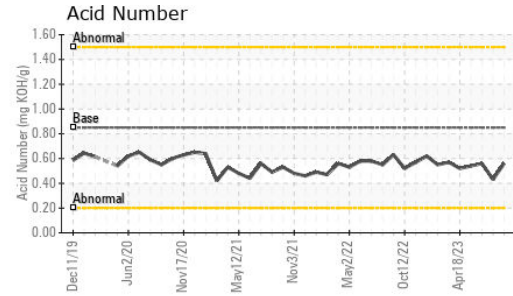
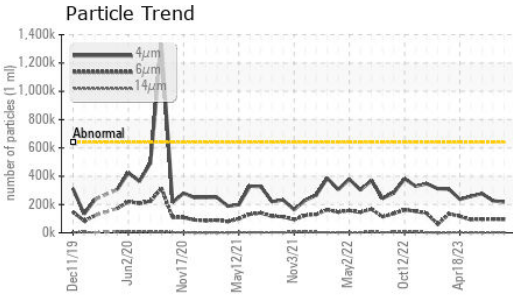
method	limit/base	current	history1	history2	
Particles >4µm	ASTM D7647	>640000	<b>217146</b>	226686	277108
Particles >6µm	ASTM D7647	>160000	<b>94877</b>	97512	96363
Particles >14µm	ASTM D7647	>40000	<b>2622</b>	3527	2265
Particles >21µm	ASTM D7647	>10000	<b>272</b>	415	282
Particles >38µm	ASTM D7647	>2500	<b>10</b>	3	2
Particles >71µm	ASTM D7647	>640	<b>3</b>	0	1
Oil Cleanliness	ISO 4406 (c)	>26/24/22	<b>25/24/19</b>	25/24/19	25/24/18

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974* 0.85	<b>0.56</b>	0.43	0.56



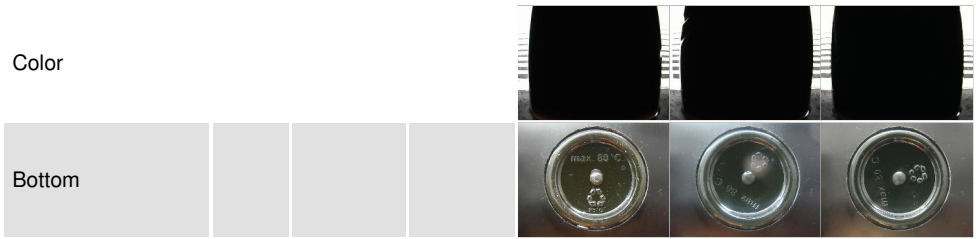
# OIL ANALYSIS REPORT



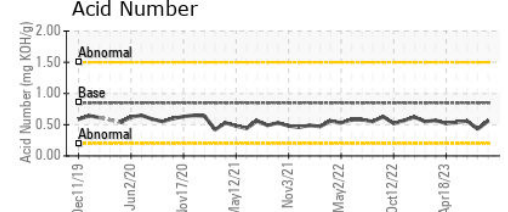
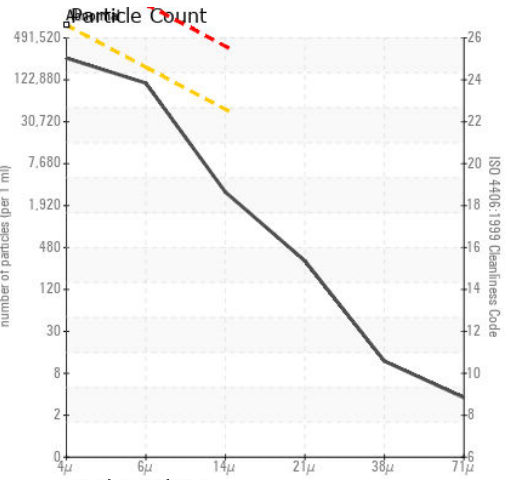
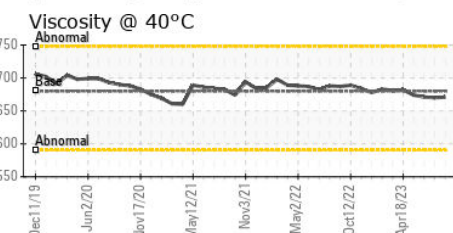
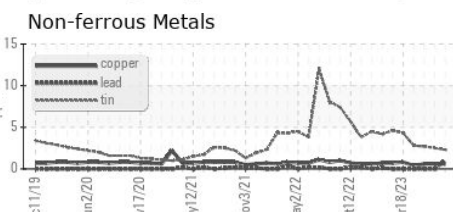
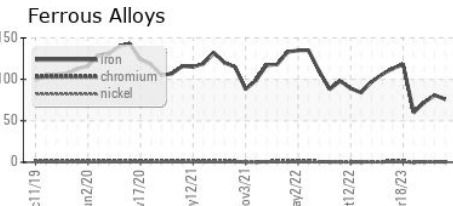
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	680	671	671

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **ALGOMA STEEL INC. - STORES DEPT.**  
**Sample No.** : WC0837462 **Received** : 02 Oct 2023 301 WALLACE TERRACE  
**Lab Number** : 02586177 **Diagnosed** : 04 Oct 2023 SAULT STE MARIE, ON  
**Unique Number** : 5655243 **Diagnostician** : Wes Davis CA P6C 1K8  
**Test Package** : IND 2 ( Additional Tests: 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.  
 Contact: Algoma Reliability  
 algomareliability@algoma.com  
 T: (705)206-1059  
 F: (705)945-3585