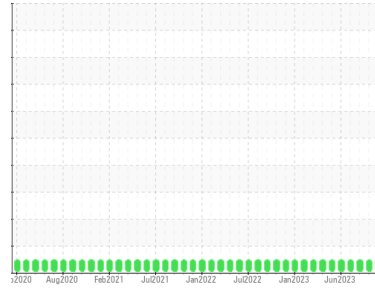




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Area  
**Direct Strip Mill/Finishing**  
 Machine Id  
**NH1 HYDRAULIC SYSTEM - CONDITIONING (DSC001) (S/N 1000014279)**  
 Component  
**Hydraulic System**  
 Fluid  
**SHELL TELLUS S2 MX 46 (6000 LTR)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### 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>WC0837445</b>	WC0837327	WC0837402
Sample Date	Client Info			<b>18 Jan 2024</b>	14 Nov 2023	26 Sep 2023
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed	Client Info			<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.05	<b>NEG</b>	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>40	<b>&lt;1</b>	<1	<1
Chromium	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185(m)	>4	<b>&lt;1</b>	0	0
Lead	ppm	ASTM D5185(m)	>10	<b>0</b>	<1	3
Copper	ppm	ASTM D5185(m)	>60	<b>1</b>	1	1
Tin	ppm	ASTM D5185(m)	>4	<b>0</b>	0	0
Antimony	ppm	ASTM D5185(m)		<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

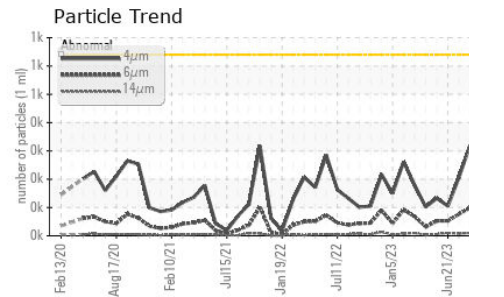
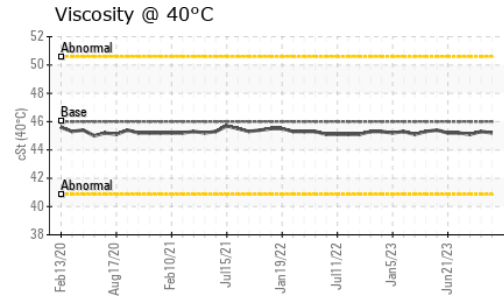
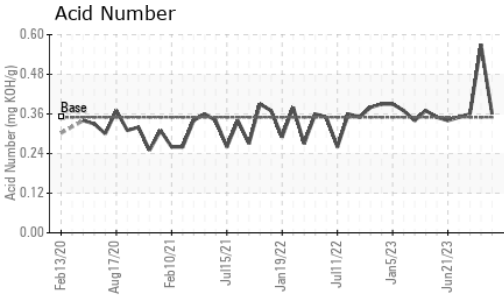
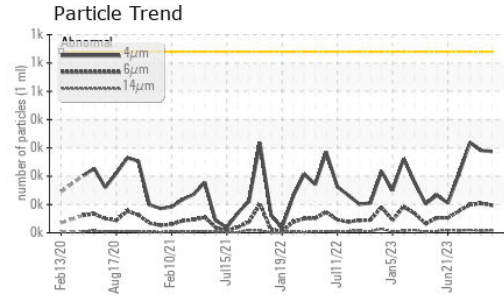
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Barium	ppm	ASTM D5185(m)	0	<b>0</b>	<1	<1
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	70	<b>27</b>	28	29
Calcium	ppm	ASTM D5185(m)	10	<b>16</b>	16	15
Phosphorus	ppm	ASTM D5185(m)	300	<b>274</b>	276	285
Zinc	ppm	ASTM D5185(m)	325	<b>291</b>	306	308
Sulfur	ppm	ASTM D5185(m)	665	<b>686</b>	1006	743
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	<b>0</b>	1	<1
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	1
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	<1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>640	<b>287</b>	291	319
Particles >6µm		ASTM D7647	>160	<b>97</b>	104	99
Particles >14µm		ASTM D7647	>20	<b>9</b>	7	10
Particles >21µm		ASTM D7647	>4	<b>1</b>	2	3
Particles >38µm		ASTM D7647	>3	<b>0</b>	0	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>16/14/11	<b>15/14/10</b>	15/14/10	15/14/10



# OIL ANALYSIS REPORT

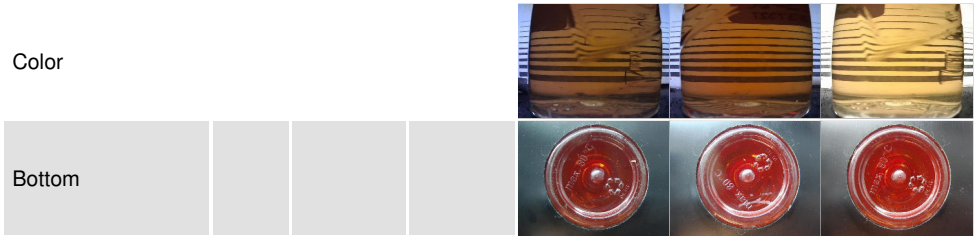


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.35	<b>0.36</b>	0.57	0.36

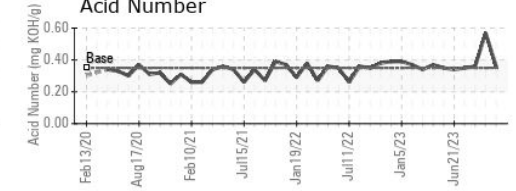
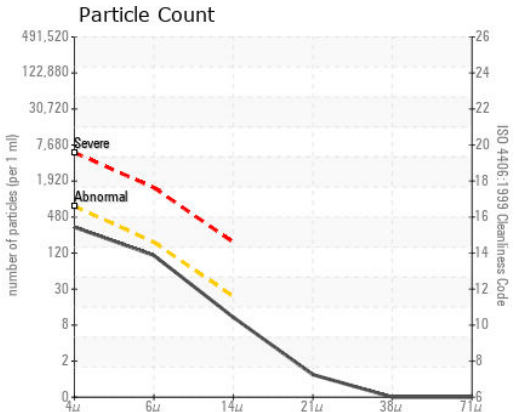
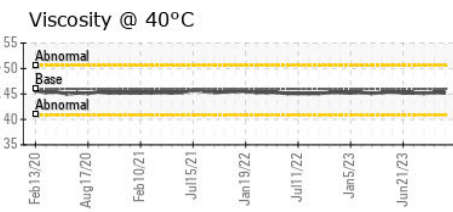
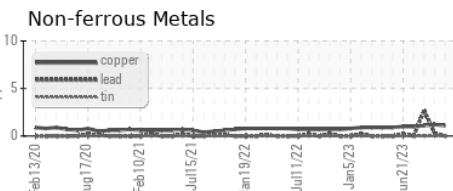
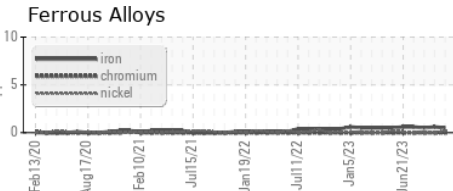
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	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*	>0.05	<b>NEG</b>	NEG	NEG
Free Water	scalar	Visual*		<b>NEG</b>	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46.0	<b>45.2</b>	45.3	45.1

### SAMPLE IMAGES



### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **ALGOMA STEEL INC. - STORES DEPT.**  
**Sample No.** : WC0837445 **Received** : 22 Jan 2024 **301 WALLACE TERRACE**  
**Lab Number** : **02610283** **Diagnosed** : 23 Jan 2024 **SAULT STE MARIE, ON**  
**Unique Number** : 5711369 **Diagnostician** : Wes Davis **CA P6C 1K8**  
**Test Package** : IND 2 ( Additional Tests: TAN Man ) **Contact: Algoma Reliability**  
**algomareliability@algoma.com**  
*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.*