



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area  
**Temboard/Service/Stock Preparation**  
 Machine Id  
**N/A N/A [804-236-010] TB Softwood Refiner #1**  
 Component  
**Hydraulic System**  
 Fluid  
**SHELL TELLUS 68 (37 LTR)**

## RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0861530</b>	WC0841330	WC0822101
Sample Date		Client Info		<b>18 Oct 2023</b>	18 Aug 2023	18 Jun 2023
Machine Age	hrs	Client Info		<b>0</b>	0	0
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>ABNORMAL</b>	SEVERE	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	3	2
Chromium	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185(m)	>20	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	0
Lead	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1
Tin	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

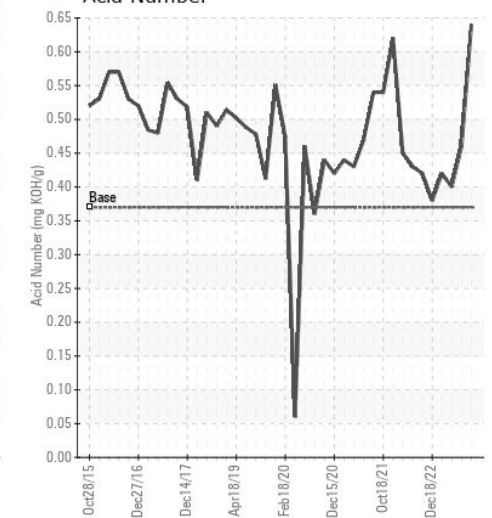
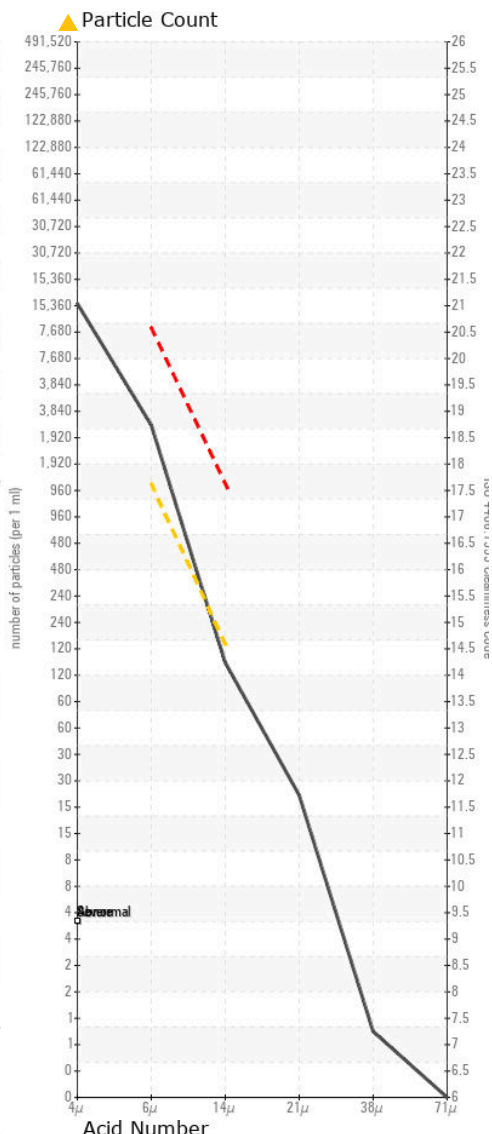
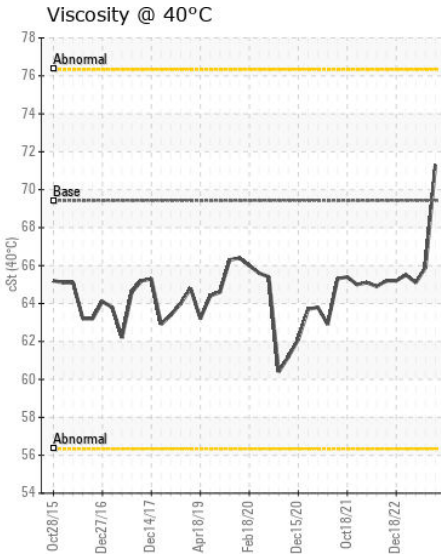
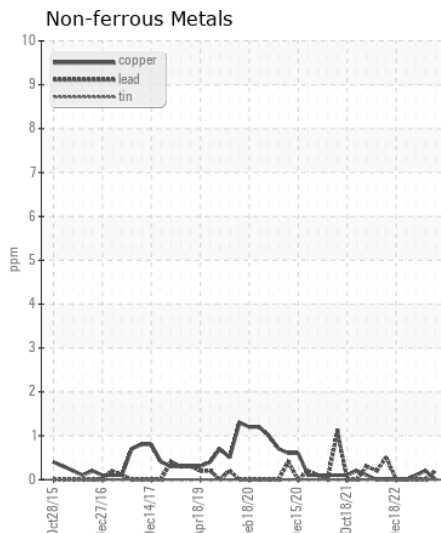
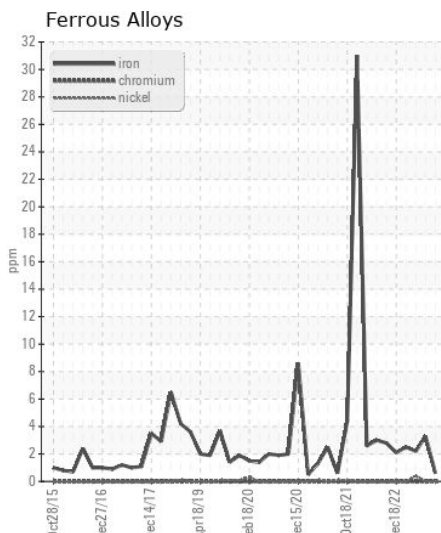
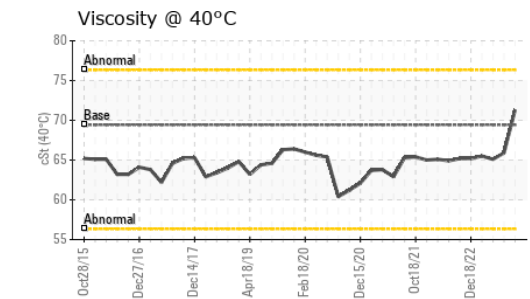
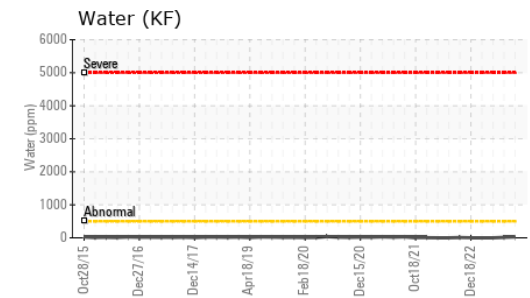
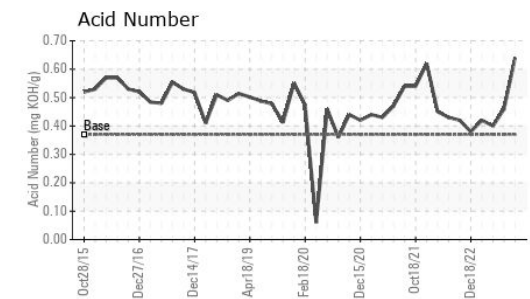
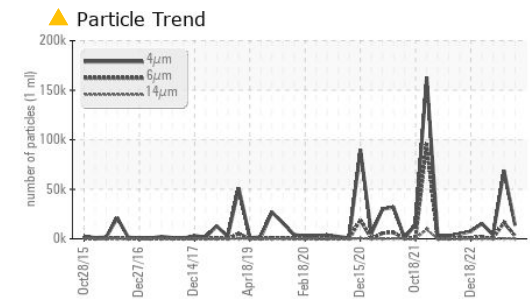
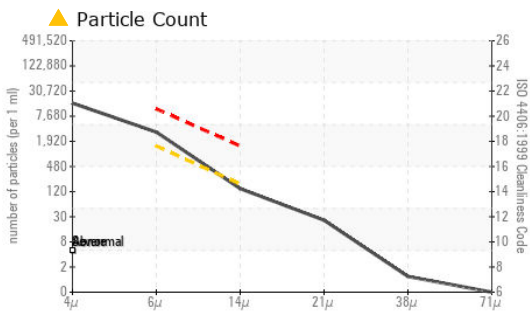
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

Silicon	ppm	ASTM D5185(m)	>15	<b>3</b>	3	4
Potassium	ppm	ASTM D5185(m)	>20	<b>4</b>	0	<1
Water	%	ASTM D6304*	>0.05	<b>0.003</b>	0.001	0.00
ppm Water	ppm	ASTM D6304*	>500	<b>28</b>	14.1	0.00
Particles >4µm		ASTM D7647		<b>13731</b>	68781	4094
Particles >6µm		ASTM D7647	>1300	<b>▲ 2797</b>	▲ 16274	383
Particles >14µm		ASTM D7647	>160	<b>125</b>	▲ 467	14
Particles >21µm		ASTM D7647	>40	<b>22</b>	▲ 74	6
Particles >38µm		ASTM D7647	>10	<b>1</b>	4	1
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	∓-/17/14	<b>▲ 21/19/14</b>	▲ 23/21/16	19/16/11
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	VLITE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>VLITE</b>	VLITE	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

## 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.

Sodium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Boron	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Barium	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Molybdenum	ppm	ASTM D5185(m)		<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185(m)	11	<b>&lt;1</b>	<1	<1
Calcium	ppm	ASTM D5185(m)	39	<b>53</b>	51	51
Phosphorus	ppm	ASTM D5185(m)	260	<b>342</b>	346	367
Zinc	ppm	ASTM D5185(m)	279	<b>427</b>	450	434
Sulfur	ppm	ASTM D5185(m)	2109	<b>2128</b>	3077	3651
Acid Number (AN)	mg KOH/g	ASTM D974*	0.37	<b>0.64</b>	0.46	0.40
Visc @ 40°C	cSt	ASTM D7279(m)	69.43	<b>71.3</b>	65.9	65.1



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0861530 **Received** : 11 Jan 2024  
**Lab Number** : 02608200 **Diagnosed** : 15 Jan 2024  
**Unique Number** : 5709286 **Diagnostician** : Wes Davis  
**Test Package** : IND 2 ( Additional Tests: KF, 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.

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