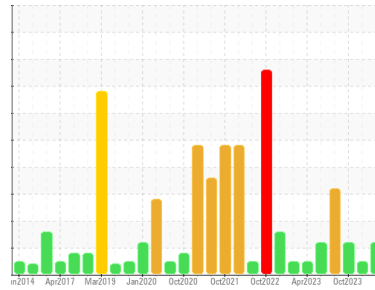




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**Dewatering**  
 Machine Id  
**Hydraulic, Unit, 36-HU-1**  
 Component  
**Hydraulic System**  
 Fluid  
**SHELL TELLUS S2 M 46 (250 LTR)**

## DIAGNOSIS

### Recommendation

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

### Wear

All component wear rates are normal.

### Contamination

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

### 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.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0898800</b>	WC0873787	WC0837974
Sample Date	Client Info		<b>09 Apr 2024</b>	09 Jan 2024	12 Oct 2023
Machine Age	hrs	Client Info	<b>0</b>	0	60
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>ABNORMAL</b>	NORMAL	ATTENTION

## 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)	>20	<b>2</b>	1	3
Chromium	ppm	ASTM D5185(m)	>20	<b>2</b>	1	2
Nickel	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	0
Lead	ppm	ASTM D5185(m)	>20	<b>0</b>	0	0
Copper	ppm	ASTM D5185(m)	>20	<b>1</b>	1	2
Tin	ppm	ASTM D5185(m)	>20	<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)		<b>0</b>	0	<1
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
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)		<b>68</b>	65	65
Calcium	ppm	ASTM D5185(m)		<b>10</b>	12	11
Phosphorus	ppm	ASTM D5185(m)		<b>280</b>	294	281
Zinc	ppm	ASTM D5185(m)		<b>338</b>	337	337
Sulfur	ppm	ASTM D5185(m)		<b>636</b>	686	670
Lithium	ppm	ASTM D5185(m)		<b>&lt;1</b>	<1	<1

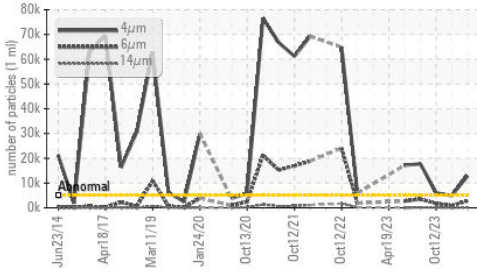
## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	<1
Sodium	ppm	ASTM D5185(m)		<b>&lt;1</b>	0	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	<1	0

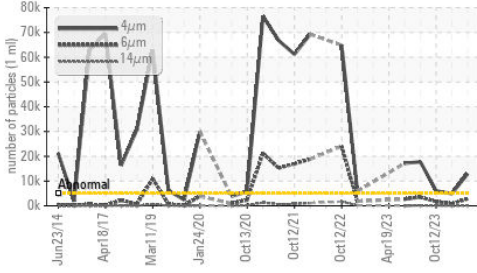
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>▲ 12916</b>	4885	● 6059
Particles >6µm	ASTM D7647	>1300	<b>▲ 2806</b>	856	● 1710
Particles >14µm	ASTM D7647	>160	<b>122</b>	23	97
Particles >21µm	ASTM D7647	>40	<b>23</b>	4	18
Particles >38µm	ASTM D7647	>10	<b>1</b>	1	2
Particles >71µm	ASTM D7647	>3	<b>1</b>	1	1
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>▲ 21/19/14</b>	19/17/12	● 20/18/14

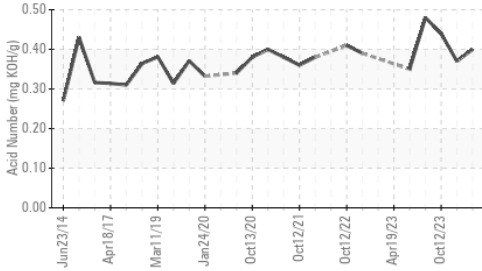
### Particle Trend



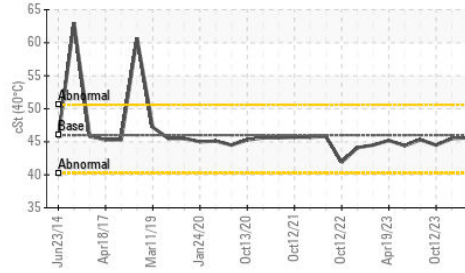
### Particle Trend



### Acid Number



### Viscosity @ 40°C



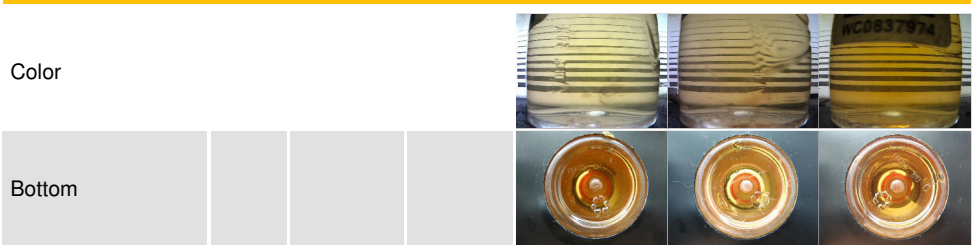
### FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g	ASTM D974*	<b>0.40</b>	0.37	0.44
VISUAL				
method	limit/base	current	history1	history2
White Metal	scalar Visual*	NONE	NONE	NONE
Yellow Metal	scalar Visual*	NONE	NONE	VLITE
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*	>0.05	NEG	NEG
Free Water	scalar Visual*	NEG	NEG	NEG

### FLUID PROPERTIES

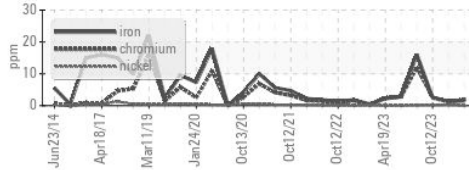
method	limit/base	current	history1	history2
Visc @ 40°C	cSt ASTM D7279(m)	<b>45.6</b>	45.5	44.5

### SAMPLE IMAGES

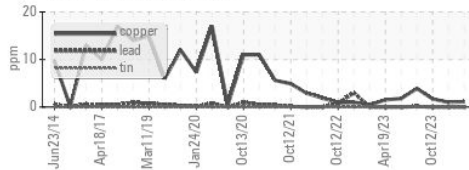


### GRAPHS

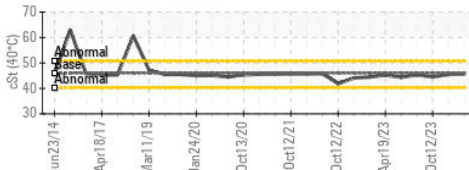
#### Ferrous Alloys



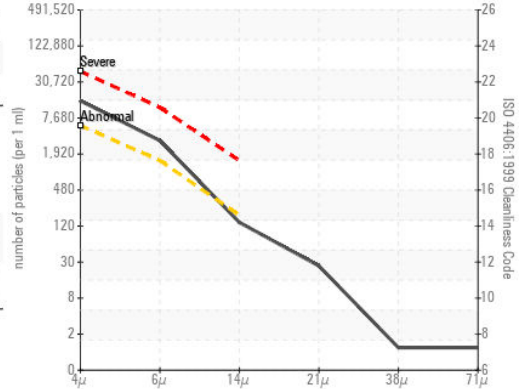
#### Non-ferrous Metals



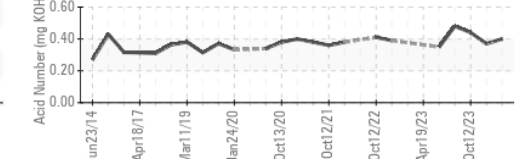
#### Viscosity @ 40°C



#### Particle Count



#### Acid Number



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0898800 **Received** : 15 Apr 2024  
**Lab Number** : **02628842** **Tested** : 16 Apr 2024  
**Unique Number** : 5761974 **Diagnosed** : 16 Apr 2024 - Wes Davis  
**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.

**Vale - Clarabelle Mill**  
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