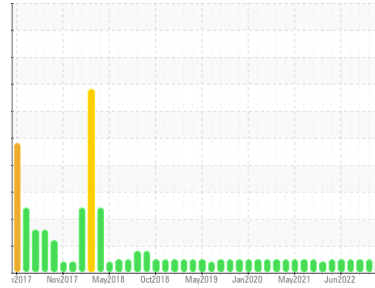




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



## Site Services

Machine Id  
N/A N/A TM-465-315-024 #1 Allis Chalmers Compressor Hydraulic Unit

Component  
Tank Air Compressor

Fluid  
ESSO NUTO H ISO 32 (1000 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 water content is negligible. 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>WC</b>	WC	WC0754492
Sample Date	Client Info	<b>03 Oct 2023</b>	28 Mar 2023	03 Nov 2022
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

### WEAR METALS

method	limit/base	current	history1	history2
Iron ppm ASTM D5185(m)	>50	<b>&lt;1</b>	2	1
Chromium ppm ASTM D5185(m)	>4	<b>0</b>	0	0
Nickel ppm ASTM D5185(m)	>4	<b>0</b>	<1	<1
Titanium ppm ASTM D5185(m)		<b>0</b>	0	0
Silver ppm ASTM D5185(m)		<b>&lt;1</b>	0	<1
Aluminum ppm ASTM D5185(m)	>10	<b>0</b>	<1	0
Lead ppm ASTM D5185(m)	>20	<b>&lt;1</b>	2	1
Copper ppm ASTM D5185(m)	>40	<b>3</b>	10	10
Tin ppm ASTM D5185(m)	>5	<b>0</b>	0	0
Antimony ppm ASTM D5185(m)		<b>0</b>	0	<1
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>&lt;1</b>	0	0
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>0</b>	0	0
Magnesium ppm ASTM D5185(m)		<b>0</b>	0	0
Calcium ppm ASTM D5185(m)		<b>34</b>	25	32
Phosphorus ppm ASTM D5185(m)		<b>338</b>	351	356
Zinc ppm ASTM D5185(m)		<b>389</b>	371	363
Sulfur ppm ASTM D5185(m)		<b>4276</b>	3893	3800
Lithium ppm ASTM D5185(m)		<b>&lt;1</b>	<1	<1

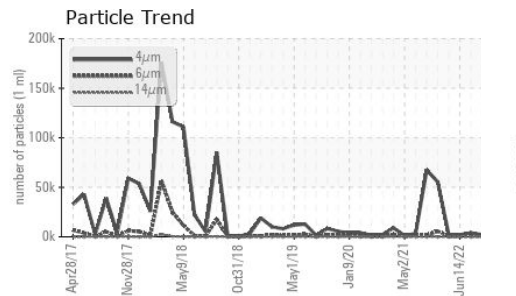
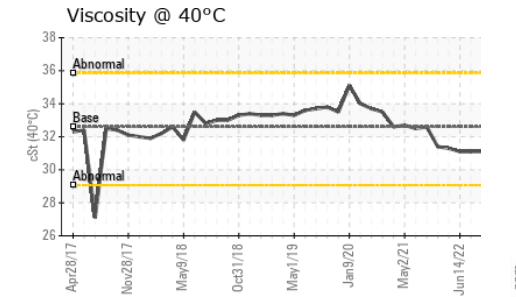
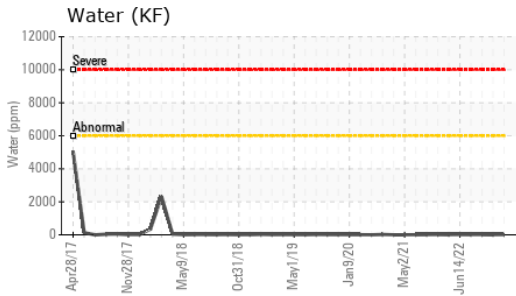
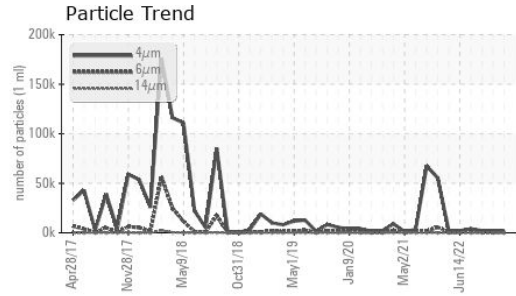
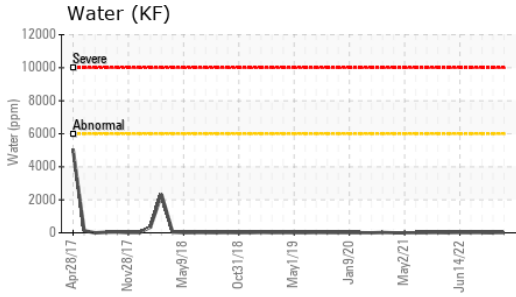
### CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm ASTM D5185(m)	>25	<b>0</b>	<1	<1
Sodium ppm ASTM D5185(m)		<b>&lt;1</b>	0	0
Potassium ppm ASTM D5185(m)	>20	<b>0</b>	0	0
Water % ASTM D6304*	>0.6	<b>0.001</b>	0.001	0.001
ppm Water ppm ASTM D6304*	>6000	<b>6.5</b>	3.1	11.8

### FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm ASTM D7647		<b>1842</b>	1468	2177
Particles >6µm ASTM D7647	>2500	<b>541</b>	450	645
Particles >14µm ASTM D7647	>320	<b>25</b>	44	46
Particles >21µm ASTM D7647	>80	<b>5</b>	11	14
Particles >38µm ASTM D7647	>20	<b>0</b>	1	1
Particles >71µm ASTM D7647	>4	<b>0</b>	0	0
Oil Cleanliness ISO 4406 (c)	>--/18/15	<b>18/16/12</b>	18/16/13	18/17/13

# OIL ANALYSIS REPORT

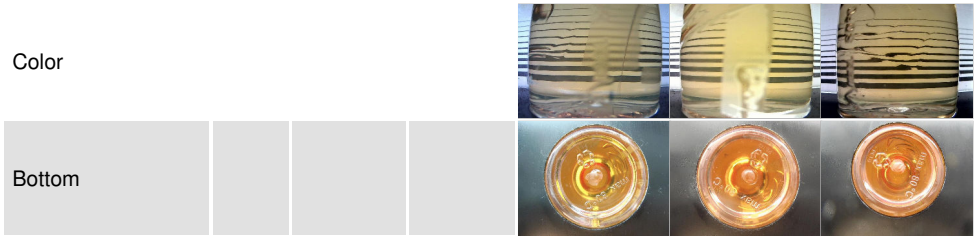


FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	.40	<b>0.57</b>	0.49	0.53

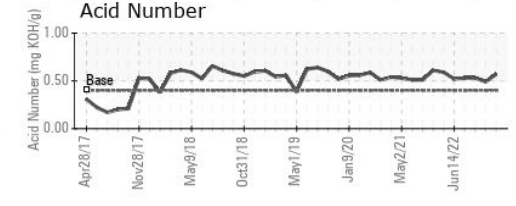
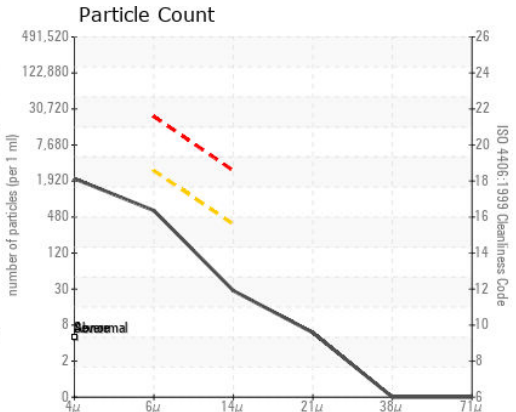
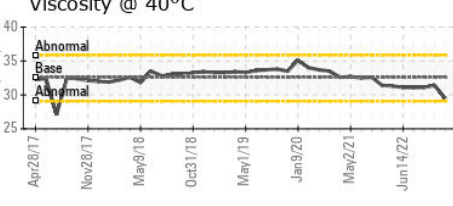
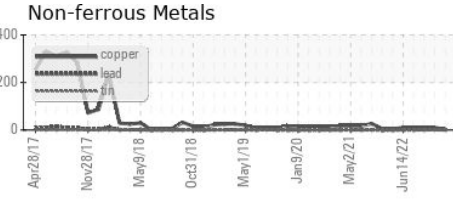
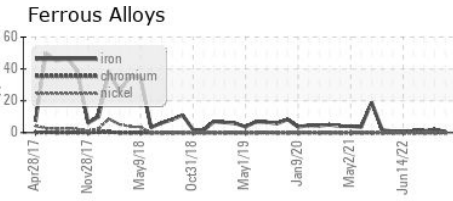
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>NONE</b>	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*	>0.6	<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)	32.6	<b>29.5</b>	31.4	31.1

### SAMPLE IMAGES



### GRAPHS



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC  
**Lab Number** : 02587622  
**Unique Number** : 5656688  
**Test Package** : IND 2 ( Additional Tests: KF )  
**Received** : 06 Oct 2023  
**Diagnosed** : 10 Oct 2023  
**Diagnostician** : Wes Davis

**Rayonier Advanced Materials**  
 P.O.Box 6000, 33 Kipawa Road  
 Temiscaming, QC  
 CA J0Z 3R0  
 Contact: Dean Violette  
 dean.violette@ryam.com  
 T: (819)627-6891  
 F: (819)627-1507

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.