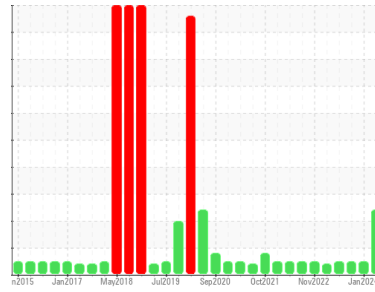




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**TYSROGCNQ PACKOUT (S/N XA 0686)**  
 Component  
**Hydraulic System**  
 Fluid  
**HOUGHTON HOUGHTON SAFE 419 (--- GAL)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a high amount of particulates present in the oil.

### Fluid Condition

The pH level of this fluid is within the acceptable limits at 7.0. The condition of the oil is acceptable for service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>USP0011446</b>	USP0005383	USP0003203
Sample Date	Client Info		<b>07 May 2024</b>	24 Jan 2024	15 Oct 2023
Machine Age	mths	Client Info	<b>0</b>	0	0
Oil Age	mths	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	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
PQ	ASTM D8184		<b>66</b>	---	---
Iron	ppm	ASTM D5185m >20	<b>8</b>	0	0
Chromium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	0
Nickel	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>1</b>	<1	<1
Lead	ppm	ASTM D5185m >20	<b>0</b>	1	0
Copper	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	<1
Tin	ppm	ASTM D5185m >20	<b>&lt;1</b>	<1	0
Vanadium	ppm	ASTM D5185m	<b>2</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>32</b>	0	2
Barium	ppm	ASTM D5185m	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	0
Magnesium	ppm	ASTM D5185m	<b>&lt;1</b>	2	0
Calcium	ppm	ASTM D5185m	<b>6</b>	1	0
Phosphorus	ppm	ASTM D5185m	<b>10</b>	6	0
Zinc	ppm	ASTM D5185m	<b>0</b>	0	0
Sulfur	ppm	ASTM D5185m	<b>0</b>	40	0

## CONTAMINANTS

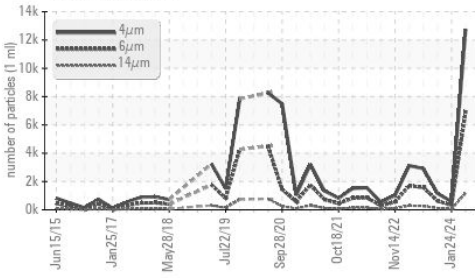
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>2</b>	<1	0
Sodium	ppm	ASTM D5185m	<b>35</b>	<1	0
Potassium	ppm	ASTM D5185m >20	<b>344</b>	4	6
Water	%	ASTM D6304 >44	<b>39.3</b>	37.6	38.5
ppm Water	ppm	ASTM D6304	<b>393000</b>	376000	385000

## FLUID CLEANLINESS

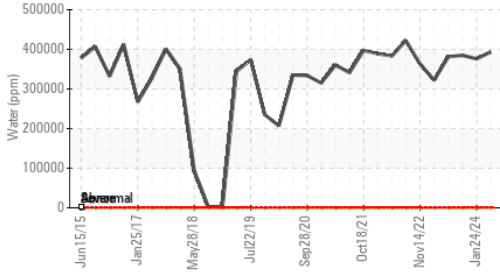
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>12736</b>	574	1166
Particles >6µm	ASTM D7647	>2500	<b>▲ 6938</b>	313	635
Particles >14µm	ASTM D7647	>320	<b>▲ 1181</b>	53	108
Particles >21µm	ASTM D7647	>80	<b>▲ 398</b>	18	36
Particles >38µm	ASTM D7647	>20	<b>▲ 61</b>	3	6
Particles >71µm	ASTM D7647	>4	<b>▲ 6</b>	0	1
Oil Cleanliness	ISO 4406 (c)	>--/18/15	<b>▲ 21/20/17</b>	16/15/13	17/16/14

# OIL ANALYSIS REPORT

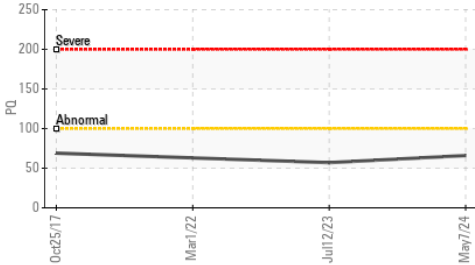
### Particle Trend



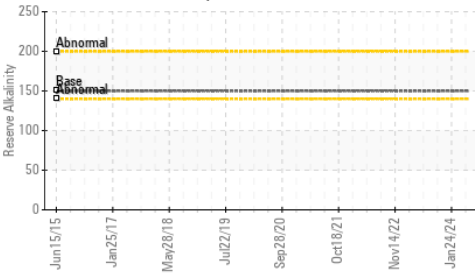
### Water (KF)



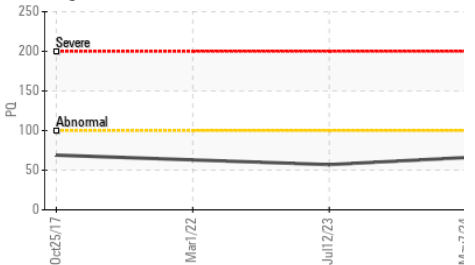
### PQ



### Reserve Alkalinity



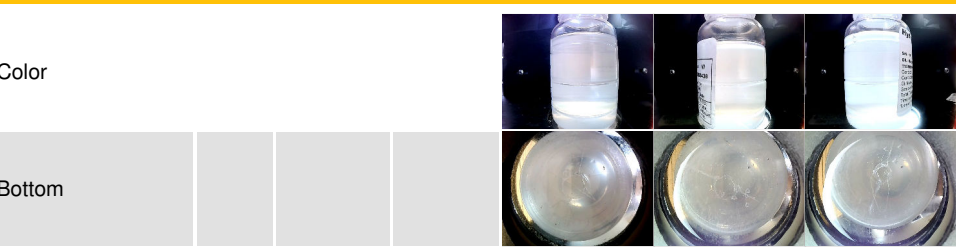
### PQ



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	>44	NEG	0.2%
Free Water	scalar	*Visual		NEG	NEG

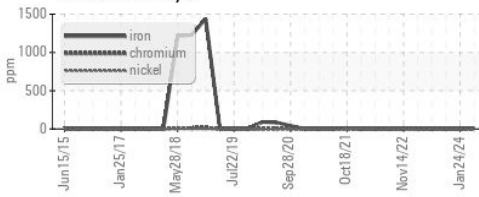
FLUID PROPERTIES	method	limit/base	current	history1	history2
pH	Scale 0-14	ASTM D1287	7.00	8.00	7.00
Visc @ 40°C	cSt	ASTM D445	43.0	53.1	52.7

### SAMPLE IMAGES

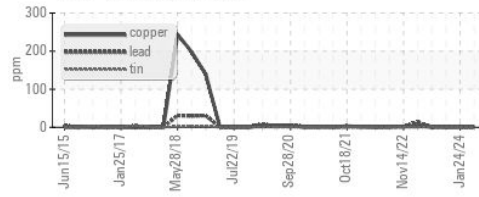


### GRAPHS

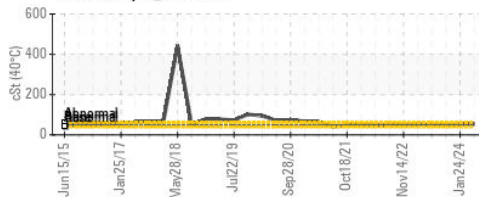
#### Ferrous Alloys



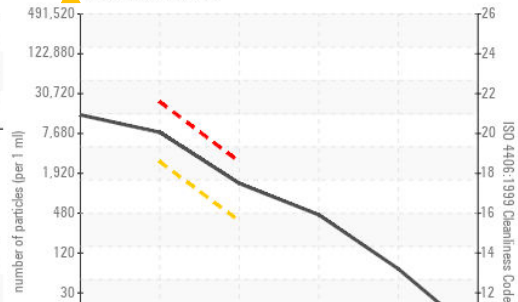
#### Non-ferrous Metals



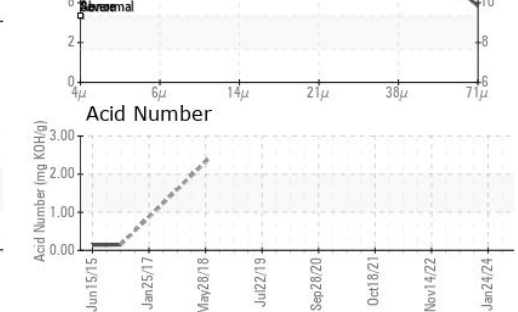
#### Viscosity @ 40°C



#### Particle Count



#### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USP0011446 **Received** : 14 May 2024  
**Lab Number** : 06178808 **Tested** : 21 May 2024  
**Unique Number** : 11030134 **Diagnosed** : 21 May 2024 - Doug Bogart  
**Test Package** : IND 2 ( Additional Tests: pH, PQ, ReserveAlk )

**TYSON CNQ -ROGERS-USP**

ROGERS, AR  
US

Contact: SERVICE MANAGER

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:  
F: