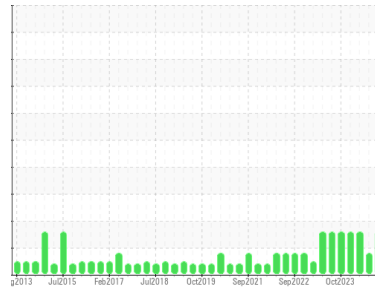




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

**NH3 Compressor**

Machine Id

**CARCAL-6 RWB222 FRICK HISTAGE 500HP**

Component

**Refrigeration Compressor**

Fluid

**USPI 1009-68 SC (--- 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 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>USP0008007</b>	USP0005917	USP0005064
Sample Date	Client Info		<b>25 Mar 2024</b>	08 Feb 2024	15 Jan 2024
Machine Age	hrs	Client Info	<b>39590</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>ABNORMAL</b>	ATTENTION	ABNORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >8	<b>0</b>	0	<1
Chromium	ppm	ASTM D5185m >2	<b>0</b>	<1	0
Nickel	ppm	ASTM D5185m	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >3	<b>&lt;1</b>	0	1
Lead	ppm	ASTM D5185m >2	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >8	<b>0</b>	0	0
Tin	ppm	ASTM D5185m >4	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>0</b>	0	0
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>	0	0
Magnesium	ppm	ASTM D5185m	<b>0</b>	<1	0
Calcium	ppm	ASTM D5185m	<b>0</b>	0	0
Phosphorus	ppm	ASTM D5185m	<b>0</b>	0	0
Zinc	ppm	ASTM D5185m	<b>0</b>	0	0
Sulfur	ppm	ASTM D5185m 50	<b>846</b>	917	1081

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>0</b>	<1	<1
Sodium	ppm	ASTM D5185m	<b>0</b>	0	0
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	1	0
Water	%	ASTM D6304 >0.01	<b>0.002</b>	0.003	0.003
ppm Water	ppm	ASTM D6304 >100	<b>19</b>	33	33

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>53346</b>	24907	101246
Particles >6µm	ASTM D7647 >2500		<b>▲ 13302</b>	● 4636	▲ 31140
Particles >14µm	ASTM D7647 >320		<b>▲ 666</b>	122	▲ 1325
Particles >21µm	ASTM D7647 >80		<b>▲ 136</b>	15	▲ 230
Particles >38µm	ASTM D7647 >20		<b>1</b>	0	3
Particles >71µm	ASTM D7647 >4		<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >--/18/15		<b>▲ 23/21/17</b>	● 22/19/14	▲ 24/22/18

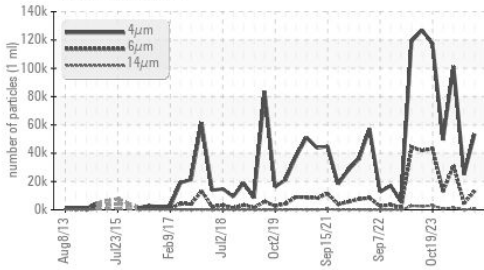
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974 0.005	<b>0.014</b>	0.014	0.014

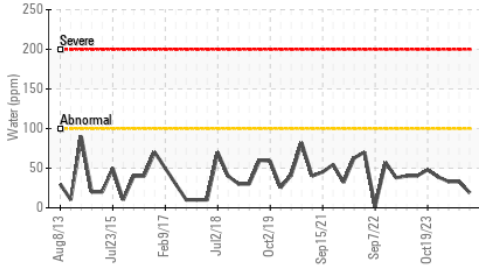


# OIL ANALYSIS REPORT

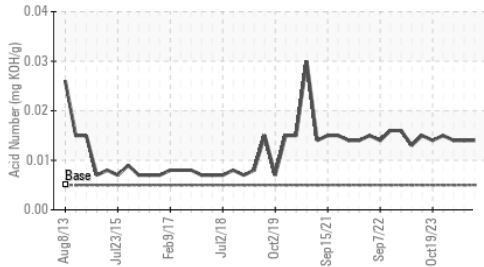
## Particle Trend



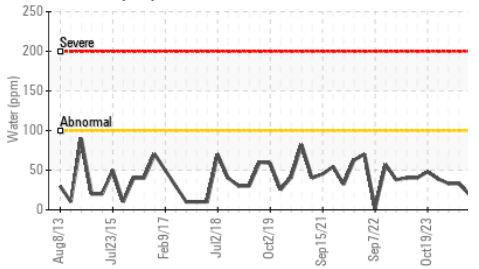
## Water (KF)



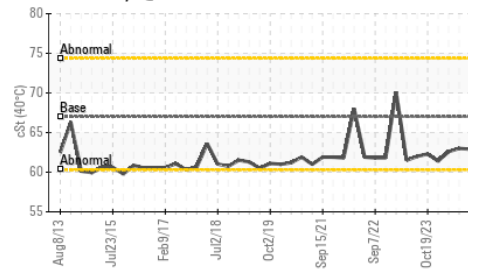
## Acid Number



## Water (KF)



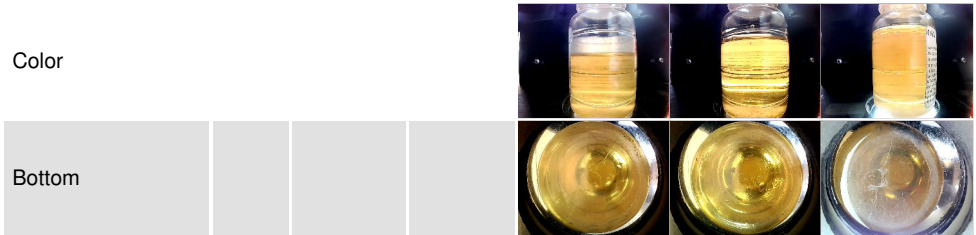
## Viscosity @ 40°C



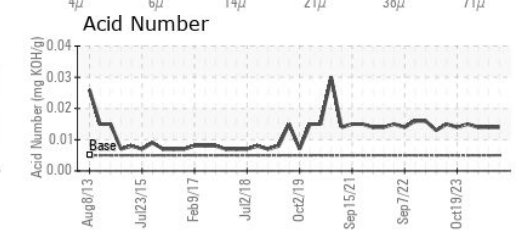
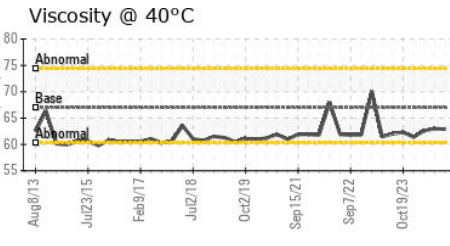
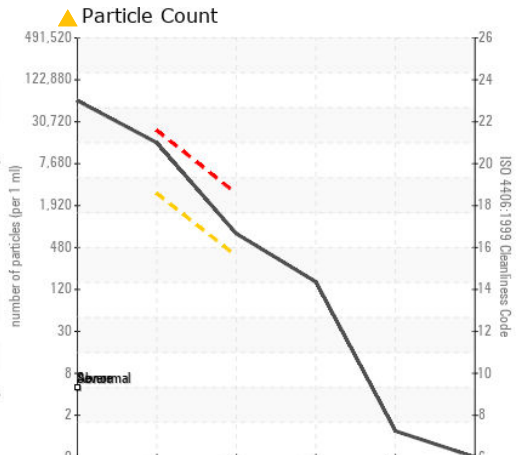
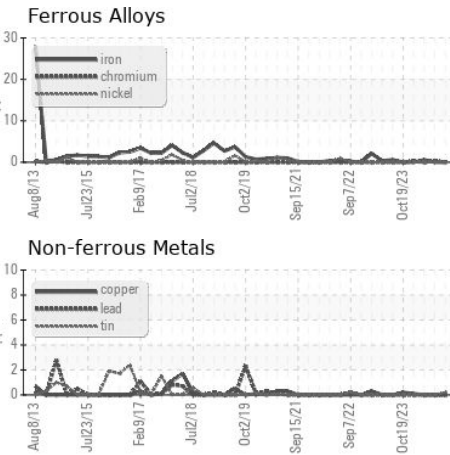
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	LIGHT
Debris	scalar	*Visual	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.01	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	67	62.9	63.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USP008007  
**Lab Number** : 06139946  
**Unique Number** : 10964754  
**Test Package** : IND 2  
**Received** : 05 Apr 2024  
**Tested** : 08 Apr 2024  
**Diagnosed** : 08 Apr 2024 - Doug Bogart

**CARGILL-CALIFORNIA**  
 1001 E. SMITH STREET  
 CALIFORNIA, MO  
 US 65018  
 Contact: REFRIGERATION DEPT.

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)

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