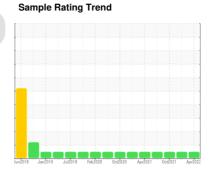


## **OIL ANALYSIS REPORT**

Area
SULLUBE **SULLAIR 201305060066 - DOE RUN** Component Compressor





### Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the fluid.

## **Fluid Condition**

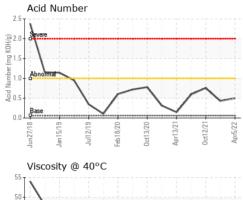
The AN level is acceptable for this fluid. The condition of the fluid is suitable for further service.

Sample Number         Client Info         UCH05517135         UCH05468854         UCH05517135           Sample Date         Client Info         05 Apr 2022         01 Feb 2022         12 O           Machine Age         hrs         Client Info         69448         67940         6525           Oil Age         hrs         Client Info         2000         1000         8000           Oil Changed         Client Info         Not Changd         Not Changd         Char           Sample Status         NORMAL         NORMAL	nged MAL history2 EG history2
Sample Date         Client Info         05 Apr 2022         01 Feb 2022         12 O           Machine Age         hrs         Client Info         69448         67940         6525           Oil Age         hrs         Client Info         2000         1000         8000           Oil Changed         Client Info         Not Changd         Not Changd         Char           Sample Status         NORMAL         NORMAL         NORMAL         NORMAL         NORMAL           CONTAMINATION         method         limit/base         current         history1         Initiation           WEAR METALS         method         limit/base         current         history1         Initiation           Iron         ppm         ASTM D5185m         >50         4         2         1           Chromium         ppm         ASTM D5185m         >10         0         0         0           Nickel         ppm         ASTM D5185m         0         0         0         0           Silver         ppm         ASTM D5185m         0         <1	ct 2021 62 nged MAL history2 EG
Machine Age         hrs         Client Info         69448         67940         6525           Oil Age         hrs         Client Info         2000         1000         8000           Oil Changed         Client Info         Not Changd         Not Changd         Char           Sample Status         NORMAL         NORMAL         NORMAL         NORMAL           CONTAMINATION         method         limit/base         current         history1         If           Wear         WC Method         >0.1         NEG         NEG         NI           WEAR METALS         method         limit/base         current         history1         If           Iron         ppm         ASTM D5185m         >50         4         2         1           Chromium         ppm         ASTM D5185m         >10         0         0         <1	inged IMAL history2 EG history2
Oil Age         hrs         Client Info         2000         1000         8000           Oil Changed         Client Info         Not Changd         Not Changd         Char           Sample Status         NORMAL         NORMAL         NORMAL         NORMAL           CONTAMINATION         method         limit/base         current         history1         If           Water         WC Method         >0.1         NEG         NEG         NI           WEAR METALS         method         limit/base         current         history1         If           Iron         ppm         ASTM D5185m         >50         4         2         1           Chromium         ppm         ASTM D5185m         >10         0         0         <1	nged MAL history2 EG history2
Oil Changed Sample Status         Client Info         Not Changd NORMAL         Not Changd NORMAL         Not Changd NORMAL         Charged NORMAL           CONTAMINATION         method         limit/base         current         history1         limit/base           WEAR METALS         method         limit/base         current         history1         limit/base           Iron         ppm         ASTM D5185m         >50         4         2         1           Chromium         ppm         ASTM D5185m         >10         0         0         0           Nickel         ppm         ASTM D5185m         0         0         0         0           Silver         ppm         ASTM D5185m         0         <1	history2 EG history2
Sample Status         NORMAL         NORMAL         NORMAL         NORMAL           CONTAMINATION         method         limit/base         current         history1         bit           Water         WC Method         >0.1         NEG         NEG         NI           WEAR METALS         method         limit/base         current         history1         bit           Iron         ppm         ASTM D5185m         >50         4         2         1           Chromium         ppm         ASTM D5185m         >10         0         0         0           Nickel         ppm         ASTM D5185m         0         0         0         0           Titanium         ppm         ASTM D5185m         0         0         0         0           Silver         ppm         ASTM D5185m         0         <1	history2 EG history2
CONTAMINATION         method         limit/base         current         history1         It           Water         WC Method         >0.1         NEG         NEG         NI           WEAR METALS         method         limit/base         current         history1         It           Iron         ppm         ASTM D5185m         >50         4         2         1           Chromium         ppm         ASTM D5185m         >10         0         0         0           Nickel         ppm         ASTM D5185m         0         0         <1	history2 EG history2
Water         WC Method         >0.1         NEG         NEG         NI           WEAR METALS         method         limit/base         current         history1         I           Iron         ppm         ASTM D5185m         >50         4         2         1           Chromium         ppm         ASTM D5185m         >10         0         0         0           Nickel         ppm         ASTM D5185m         0         0         <1           Titanium         ppm         ASTM D5185m         0         <1         0           Silver         ppm         ASTM D5185m         0         <1         0	EG history2
WEAR METALS         method         limit/base         current         history1         I           Iron         ppm         ASTM D5185m         >50         4         2         1           Chromium         ppm         ASTM D5185m         >10         0         0         0           Nickel         ppm         ASTM D5185m         0         0         <1           Titanium         ppm         ASTM D5185m         0         <1         0           Silver         ppm         ASTM D5185m         0         <1         0	history2
Iron         ppm         ASTM D5185m         >50         4         2         1           Chromium         ppm         ASTM D5185m         >10         0         0         0           Nickel         ppm         ASTM D5185m         0         0         <1           Titanium         ppm         ASTM D5185m         0         0         0           Silver         ppm         ASTM D5185m         0         <1         0	
Chromium         ppm         ASTM D5185m         >10         0         0         0           Nickel         ppm         ASTM D5185m         0         0         <1	1
Nickel         ppm         ASTM D5185m         0         0         <1           Titanium         ppm         ASTM D5185m         0         0         0         0           Silver         ppm         ASTM D5185m         0         <1         0	ļ
Titanium         ppm         ASTM D5185m         0         0         0           Silver         ppm         ASTM D5185m         0         <1         0	1
Silver         ppm         ASTM D5185m         0         <1         0	
PP 1 1 1 1 1	
<b>Aluminum</b> ppm ASTM D5185m >25 <b>&lt;1</b> <1 <1	
<b>Lead</b> ppm ASTM D5185m >25 <b>4</b> 2 3	
Copper         ppm         ASTM D5185m         >50         4         3         3	
Tin ppm ASTM D5185m >15 <1 <1 0	
Antimony ppm ASTM D5185m <1 <1	
Vanadium ppm ASTM D5185m <b>0</b> 0	
Cadmium         ppm         ASTM D5185m         <1         <1         <1	
ADDITIVES method limit/base current history1 l	history2
Boron         ppm         ASTM D5185m         1         2         4	
<b>Barium</b> ppm ASTM D5185m 745 <b>578</b> 531 36	32
Molybdenum         ppm         ASTM D5185m         0.0         <1         0         <1	[
Manganese ppm ASTM D5185m <b>0</b> 0	
Magnesium         ppm         ASTM D5185m         0.0         7         3         3	
Calcium         ppm         ASTM D5185m         1         12         10         12	2
Phosphorus         ppm         ASTM D5185m         3         5         12         6	
<b>Zinc</b> ppm ASTM D5185m 0.1 <b>3</b> 2 6	
Sulfur         ppm         ASTM D5185m         240         376         288         36	39
CONTAMINANTS method limit/base current history1 l	history2
Silicon         ppm         ASTM D5185m         >25         1         1         2	
Sodium         ppm         ASTM D5185m         64         60         71	
Potassium         ppm         ASTM D5185m         >20         5         4         7	
FLUID DEGRADATION method limit/base current history1	history2
Acid Number (AN) mg KOH/g ASTM D8045 .06 0.50 0.43 0.3	758



Abnormal

## **OIL ANALYSIS REPORT**



VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	LIGHT	LIGHT
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	LIGHT	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TIES	method	limit/base	current	history1	history2

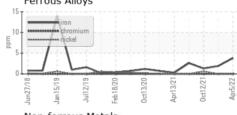
50	FLUID PROP	PERTIES	method				history2
Abnormal	Visc @ 40°C	cSt	ASTM D445	38.1	42.3	41.5	44.7
8 40 Base	CAMPLEIMA	CEC					

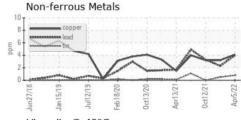
Color

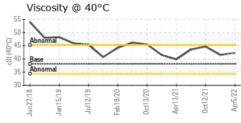


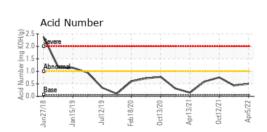


# Ferrous Alloys













Certificate 12367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : UCH05517135 Lab Number : 05517135

Unique Number : 9931414

Test Package : IND 2

Received : 12 Apr 2022 **Tested** : 14 Apr 2022

Diagnosed : 14 Apr 2022 - Don Baldridge

4700 LEBOURGET STREET SAINT LOUIS, MO US 63134

JOHN HENRY FOSTER COMPANY

Contact: RACHEL VON HATTEN rvonhatten@jhf.com

T: (314)593-1267 F: (314)874-0965

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)