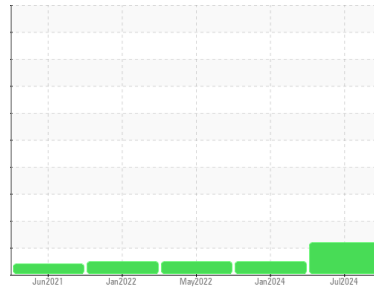




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**X-Ray Line 1 Marlen HPU**  
 Component  
**Hydraulic System**  
 Fluid  
**ESSO NUTO H ISO 68 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### 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 condition of the oil is suitable for further service.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>USP0015034</b>	USP0004839	USP235789
Sample Date	Client Info		<b>17 Jul 2024</b>	17 Jan 2024	01 May 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>ATTENTION</b>	NORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	<b>0</b>	2	<1
Chromium	ppm	ASTM D5185m >20	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m >20	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >20	<b>0</b>	0	0
Lead	ppm	ASTM D5185m >20	<b>0</b>	1	<1
Copper	ppm	ASTM D5185m >20	<b>4</b>	13	2
Tin	ppm	ASTM D5185m >20	<b>0</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 0	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m 0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m 5	<b>0</b>	0	<1
Calcium	ppm	ASTM D5185m 50	<b>35</b>	22	53
Phosphorus	ppm	ASTM D5185m 330	<b>312</b>	346	329
Zinc	ppm	ASTM D5185m 420	<b>383</b>	372	439
Sulfur	ppm	ASTM D5185m 3100	<b>4103</b>	4063	4026

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>0</b>	0	0
Sodium	ppm	ASTM D5185m	<b>1</b>	<1	0
Potassium	ppm	ASTM D5185m >20	<b>0</b>	<1	1
Water	%	ASTM D6304 >0.05	<b>0.009</b>	0.004	0.002
ppm Water	ppm	ASTM D6304 >500	<b>90</b>	41	19.3

## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>5000	<b>7220</b>	4836	2221
Particles >6µm	ASTM D7647	>1300	<b>1438</b>	734	186
Particles >14µm	ASTM D7647	>160	<b>41</b>	35	4
Particles >21µm	ASTM D7647	>40	<b>6</b>	10	0
Particles >38µm	ASTM D7647	>10	<b>0</b>	0	0
Particles >71µm	ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<b>20/18/13</b>	19/17/12	18/15/9

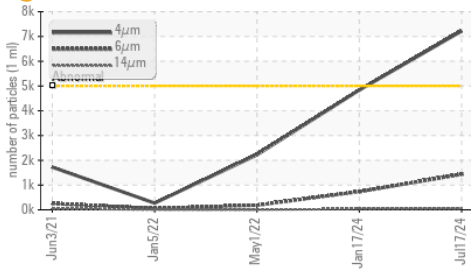
## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 .40	<b>0.28</b>	0.21	0.36

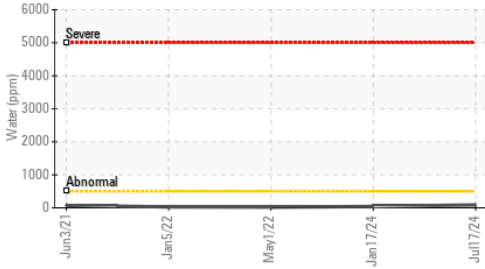


# OIL ANALYSIS REPORT

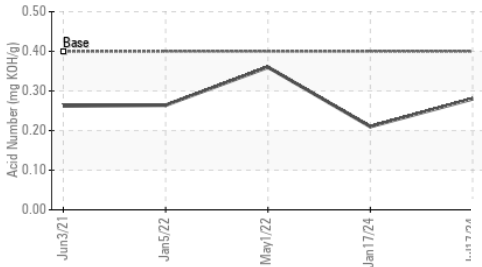
● Particle Trend



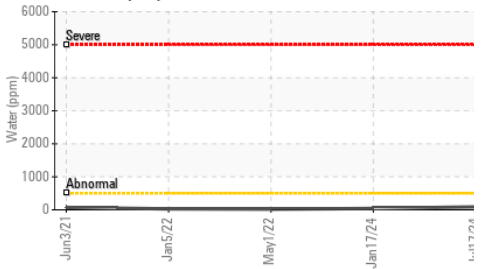
Water (KF)



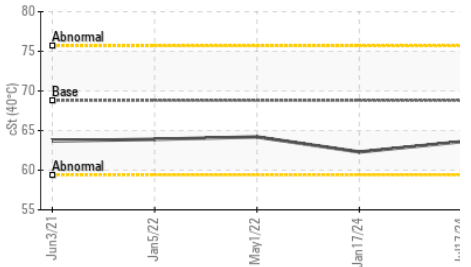
Acid Number



Water (KF)



Viscosity @ 40°C



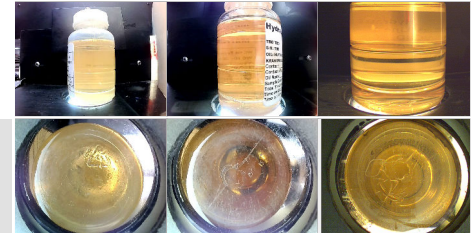
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	68.8	63.6	62.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
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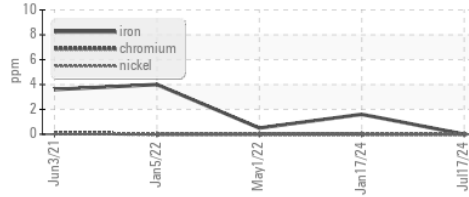
Color

Bottom

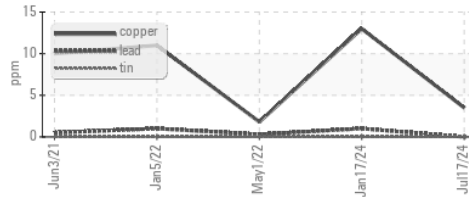


## GRAPHS

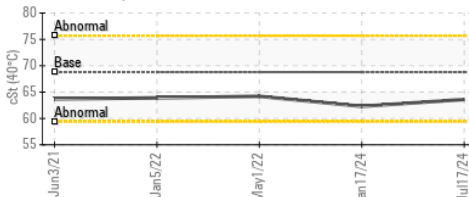
Ferrous Alloys



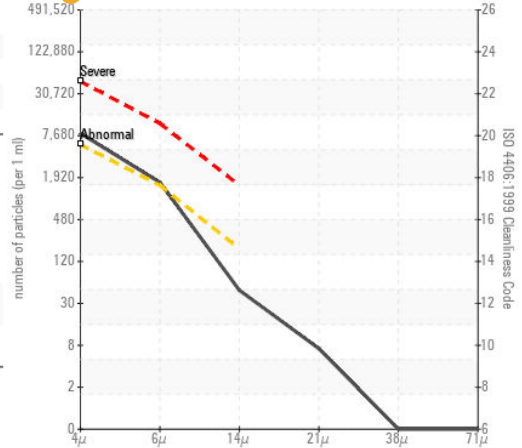
Non-ferrous Metals



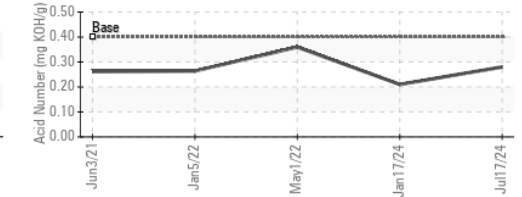
Viscosity @ 40°C



● Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : USP0015034  
 Lab Number : 06240378  
 Unique Number : 11129212  
 Test Package : IND 2

Received : 18 Jul 2024  
 Tested : 19 Jul 2024  
 Diagnosed : 19 Jul 2024 - Doug Bogart

KraftHeinz - Newberry - Plant 8335  
 3704 LOUIS RICH DR  
 NEWBERRY, SC  
 US 29108  
 Contact:

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: