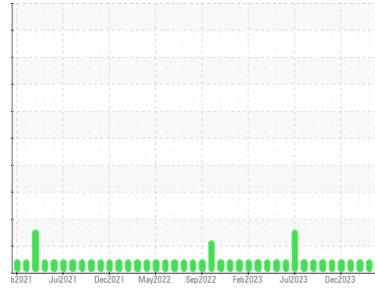




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**SSC**  
 Machine Id  
**NIRO 1 (S/N 003)**  
 Component  
**Transmission (Manual)**  
 Fluid  
**MOBIL DTE 10 XL 150 (15 GAL)**

## DIAGNOSIS

**Recommendation**  
 Resample at the next service interval to monitor.

**Wear**  
 All component wear rates are normal.

**Contamination**  
 There is no indication of any contamination in the component. The amount and size of particulates present in the system 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>USP0006330</b>	USP0005834	USP0007223
Sample Date	Client Info		<b>08 Apr 2024</b>	07 Mar 2024	07 Feb 2024
Machine Age	hrs	Client Info	<b>0</b>	55380	54391
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 D5185m >200	<b>2</b>	2	9
Chromium	ppm	ASTM D5185m >5	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m >5	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >7	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >25	<b>&lt;1</b>	0	0
Lead	ppm	ASTM D5185m >45	<b>1</b>	<1	8
Copper	ppm	ASTM D5185m >225	<b>6</b>	4	<1
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	2
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>1</b>	0	0
Magnesium	ppm	ASTM D5185m	<b>3</b>	0	0
Calcium	ppm	ASTM D5185m	<b>79</b>	53	55
Phosphorus	ppm	ASTM D5185m	<b>316</b>	405	133
Zinc	ppm	ASTM D5185m	<b>0</b>	0	0
Sulfur	ppm	ASTM D5185m	<b>1591</b>	1651	964

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >125	<b>&lt;1</b>	0	0
Sodium	ppm	ASTM D5185m	<b>2</b>	0	0
Potassium	ppm	ASTM D5185m >20	<b>2</b>	0	0
Water	%	ASTM D6304 >0.1	<b>0.002</b>	0.004	0.003
ppm Water	ppm	ASTM D6304 >1000	<b>17</b>	46	31

## FLUID CLEANLINESS

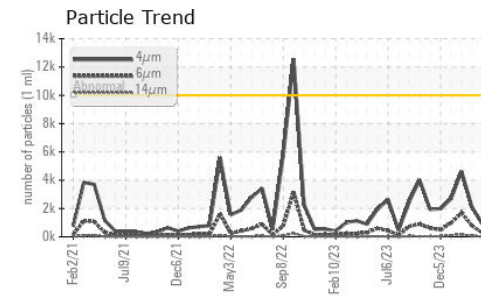
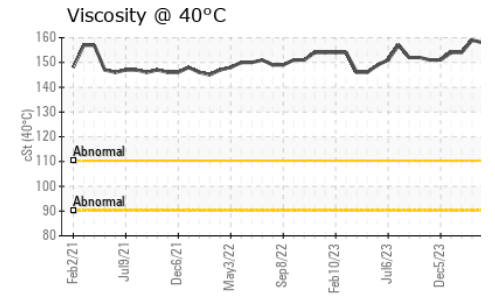
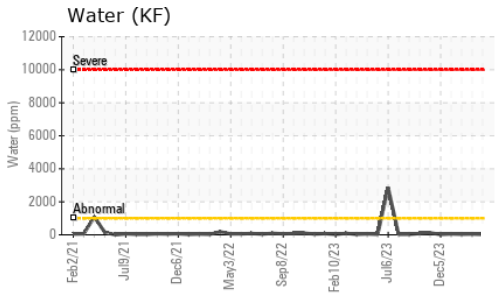
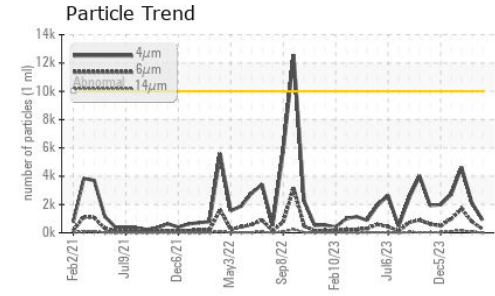
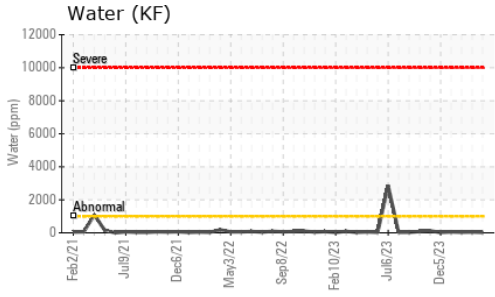
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	<b>898</b>	2073	4617
Particles >6µm	ASTM D7647	>2500	<b>267</b>	776	1684
Particles >14µm	ASTM D7647	>320	<b>17</b>	61	149
Particles >21µm	ASTM D7647	>80	<b>6</b>	14	27
Particles >38µm	ASTM D7647	>20	<b>1</b>	0	0
Particles >71µm	ASTM D7647	>4	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c)	>20/18/15	<b>17/15/11</b>	18/17/13	19/18/14

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	<b>0.09</b>	0.07	0.092



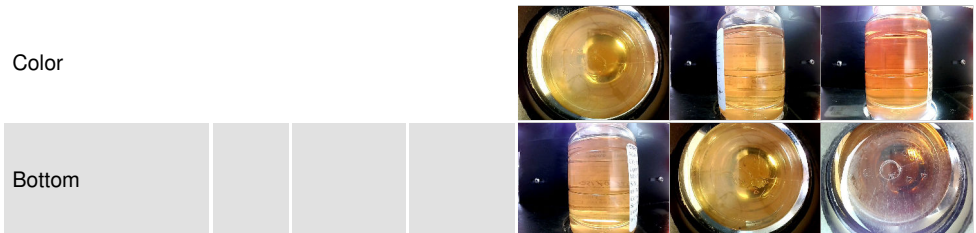
# OIL ANALYSIS REPORT



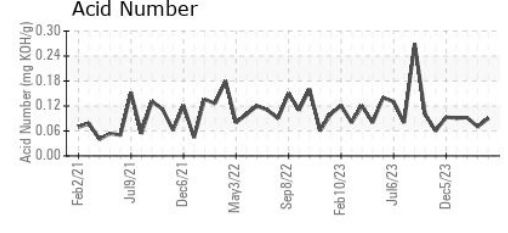
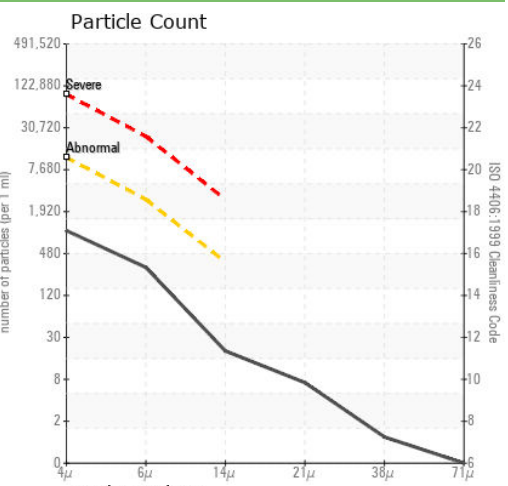
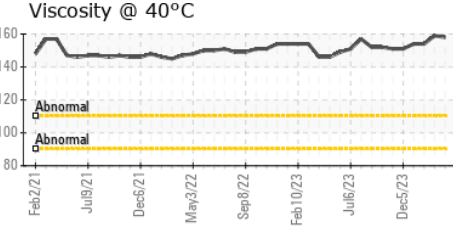
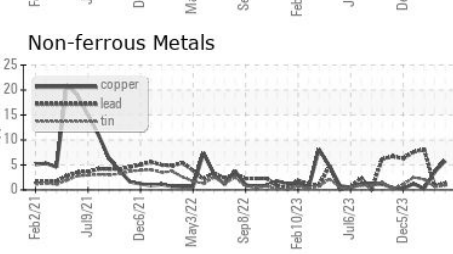
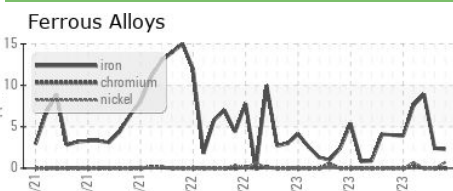
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	158	159	154

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



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : USP0006330  
**Lab Number** : 06150466  
**Unique Number** : 10980544  
**Test Package** : IND 2  
**Received** : 16 Apr 2024  
**Tested** : 17 Apr 2024  
**Diagnosed** : 17 Apr 2024 - Doug Bogart

**EMPIRICAL FOODS INC. - BPISOUPRO - EMPSOUPRO**  
 S. SIOUX CITY, NE  
 US  
 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)