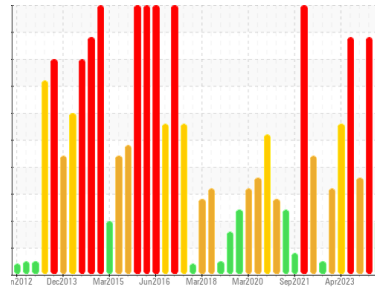




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area

**TUMBLE**

Machine Id

**B37182 - E. AMFEC HYD RES (S/N 960786)**

Component

**Hydraulic System**

Fluid

**PETRO CANADA PURITY FG AW HYDRAULIC 46 (175 GAL)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible. The system cleanliness is above the acceptable limit for the target ISO 4406 cleanliness code.

### Fluid Condition

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>WC0914014</b>	WC0856688	WC0828363
Sample Date	Client Info		<b>12 Apr 2024</b>	11 Oct 2023	16 Jul 2023
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>ABNORMAL</b>	SEVERE	ABNORMAL

## WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>20	<b>0</b>	0	2
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>&lt;1</b>	0	<1
Copper	ppm	ASTM D5185m	>20	<b>&lt;1</b>	<1	0
Tin	ppm	ASTM D5185m	>20	<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	2
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>0</b>	0	0
Calcium	ppm	ASTM D5185m		<b>0</b>	0	0
Phosphorus	ppm	ASTM D5185m		<b>469</b>	383	451
Zinc	ppm	ASTM D5185m		<b>0</b>	0	4
Sulfur	ppm	ASTM D5185m		<b>564</b>	461	518

## CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>15	<b>2</b>	1	2
Sodium	ppm	ASTM D5185m		<b>2</b>	1	0
Potassium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	2	0
Water	%	ASTM D6304	>0.05	<b>0.006</b>	▲ 90.0	▲ 0.096
ppm Water	ppm	ASTM D6304	>500	<b>68</b>	▲ 900000	▲ 960

## FLUID CLEANLINESS

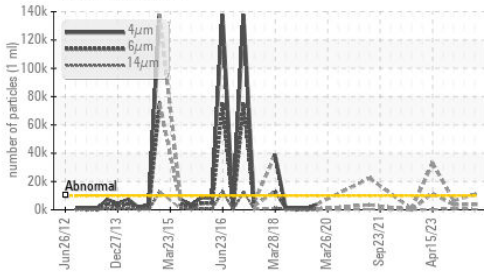
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>10000	● <b>10773</b>	---	6438
Particles >6µm	ASTM D7647	>1300	▲ <b>3753</b>	---	▲ 3507
Particles >14µm	ASTM D7647	>160	▲ <b>406</b>	---	▲ 597
Particles >21µm	ASTM D7647	>40	● <b>79</b>	---	▲ 201
Particles >38µm	ASTM D7647	>10	<b>7</b>	---	▲ 31
Particles >71µm	ASTM D7647	>3	<b>2</b>	---	3
Oil Cleanliness	ISO 4406 (c)	>20/17/14	▲ <b>21/19/16</b>	---	▲ 20/19/16

## FLUID DEGRADATION

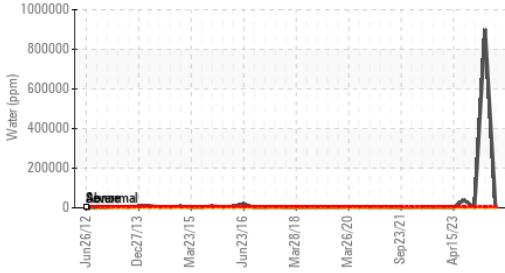
	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.26	<b>0.28</b>	---	0.40

# OIL ANALYSIS REPORT

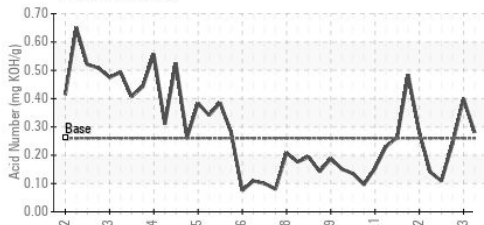
▲ Particle Trend



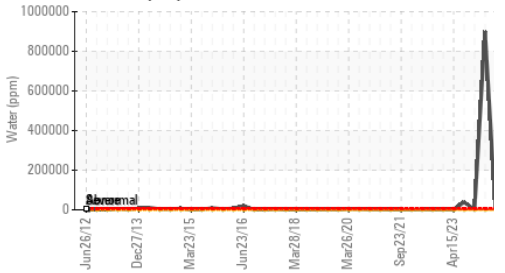
Water (KF)



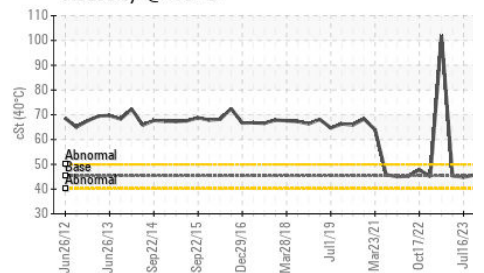
Acid Number



Water (KF)



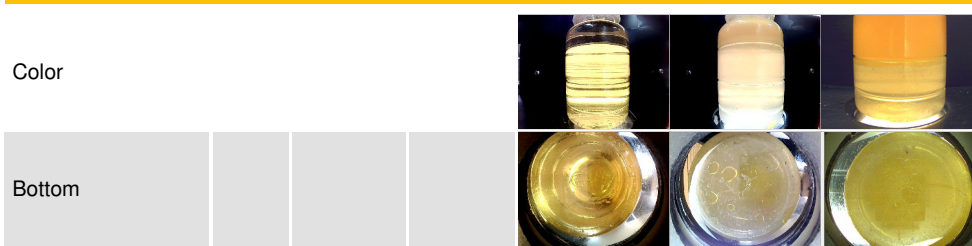
Viscosity @ 40°C



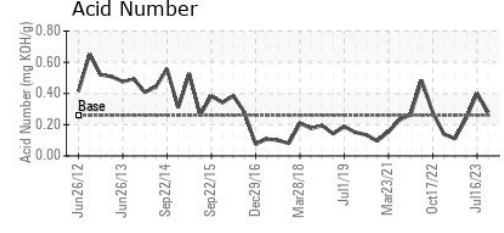
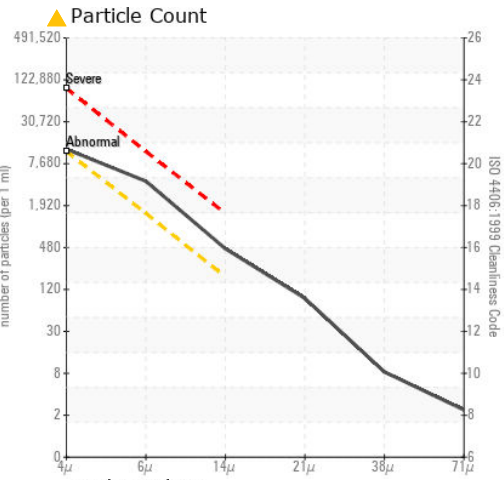
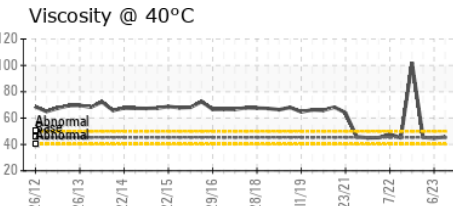
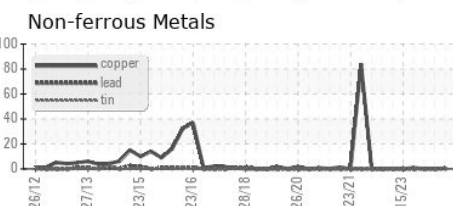
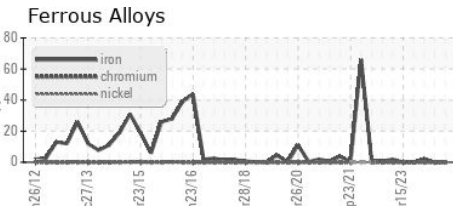
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	HAZY	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	0.2%
Free Water	scalar	*Visual		NEG	>10%

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45.36	45.7	44.8

SAMPLE IMAGES



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0914014      **Received** : 19 Apr 2024  
**Lab Number** : 06154342      **Tested** : 22 Apr 2024  
**Unique Number** : 10989765      **Diagnosed** : 22 Apr 2024 - Wes Davis  
**Test Package** : IND 2 ( Additional Tests: KF )

**OSCEOLA FOODS (HORMEL)**  
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 OSCEOLA, IA  
 US 50213  
 Contact: WADE MYERS  
 wlmyers@hormel.com  
 T: (641)342-8043  
 F: (641)342-8047

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)