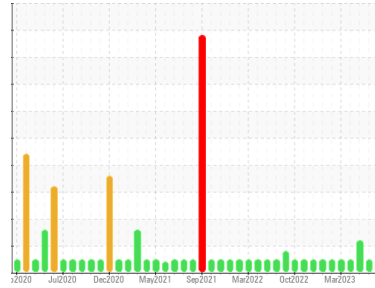




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area
HPP [10023390320]
 Machine Id
VESSEL 3 PUMP 2 (S/N B44046)

Component
Hydraulic System
 Fluid
PETRO CANADA PURITY FG AW HYDRAULIC 46 (90 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness 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	WC0840981	WC0833486	WC0810606
Sample Date	Client Info	03 Aug 2023	03 Jul 2023	29 May 2023
Machine Age	hrs	Client Info	0	0
Oil Age	hrs	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		NORMAL	NORMAL	ATTENTION

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >20	0	0
Chromium	ppm	ASTM D5185m >20	0	0
Nickel	ppm	ASTM D5185m >20	0	0
Titanium	ppm	ASTM D5185m	0	<1
Silver	ppm	ASTM D5185m	0	0
Aluminum	ppm	ASTM D5185m >20	1	<1
Lead	ppm	ASTM D5185m >20	0	0
Copper	ppm	ASTM D5185m >20	<1	0
Tin	ppm	ASTM D5185m >20	0	<1
Vanadium	ppm	ASTM D5185m	<1	0
Cadmium	ppm	ASTM D5185m	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0
Barium	ppm	ASTM D5185m	0	0
Molybdenum	ppm	ASTM D5185m	0	0
Manganese	ppm	ASTM D5185m	<1	<1
Magnesium	ppm	ASTM D5185m	0	0
Calcium	ppm	ASTM D5185m	0	0
Phosphorus	ppm	ASTM D5185m	462	481
Zinc	ppm	ASTM D5185m	0	0
Sulfur	ppm	ASTM D5185m	555	662

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	2	2
Sodium	ppm	ASTM D5185m	<1	0
Potassium	ppm	ASTM D5185m >20	0	<1
Water	%	ASTM D6304 >0.05	0.004	0.001
ppm Water	ppm	ASTM D6304 >500	45.2	4.7

FLUID CLEANLINESS

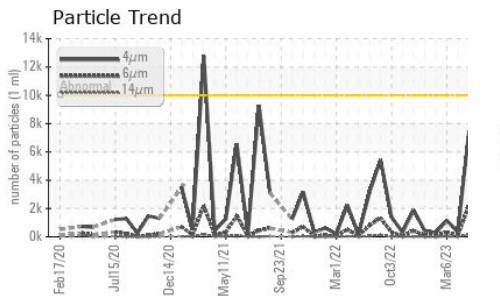
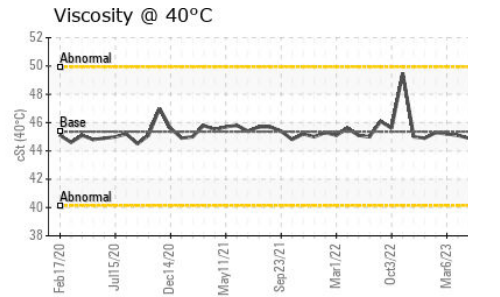
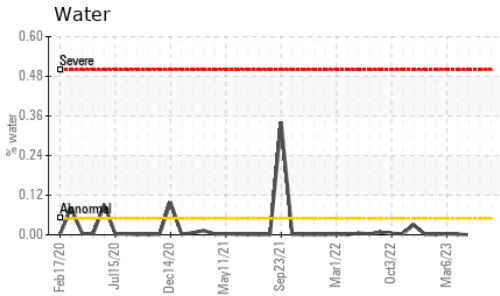
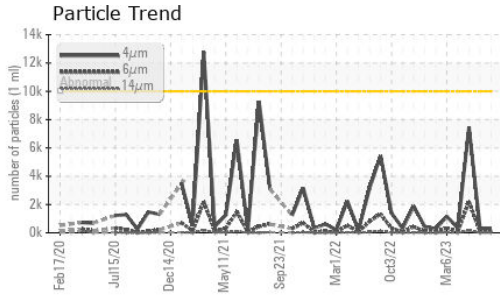
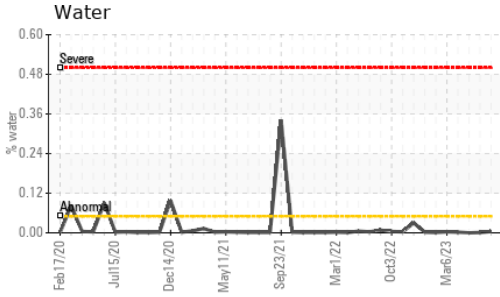
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >10000	308	326	7478
Particles >6µm	ASTM D7647 >1300	109	85	2203
Particles >14µm	ASTM D7647 >160	12	7	167
Particles >21µm	ASTM D7647 >40	4	2	40
Particles >38µm	ASTM D7647 >10	0	0	4
Particles >71µm	ASTM D7647 >3	0	0	0
Oil Cleanliness	ISO 4406 (c) >20/17/14	15/14/11	16/14/10	20/18/15

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.26	0.21	0.19



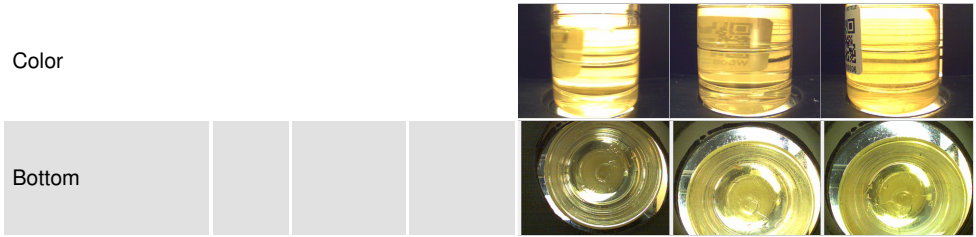
OIL ANALYSIS REPORT



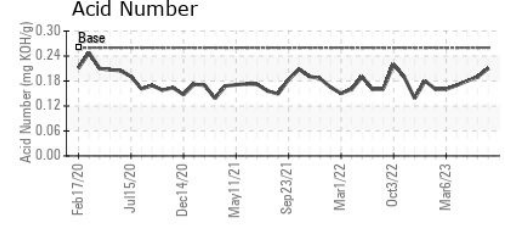
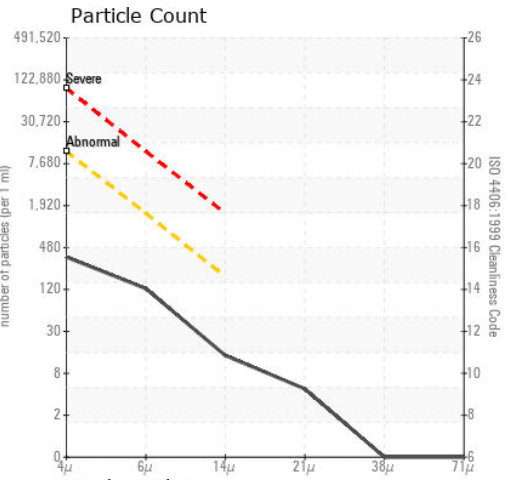
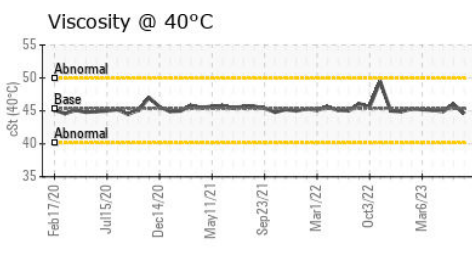
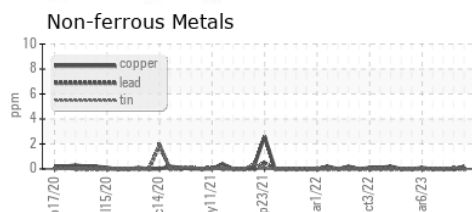
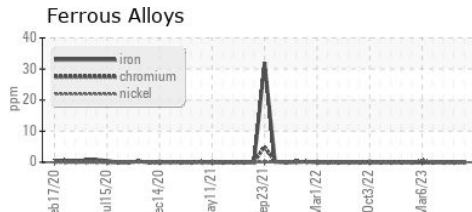
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45.36	44.6	46.0

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0840981 **Received** : 11 Aug 2023
Lab Number : 05922209 **Diagnosed** : 14 Aug 2023
Unique Number : 10602156 **Diagnostician** : Wes Davis
Test Package : IND 2 (Additional Tests: KF)

OSCEOLA FOODS (HORMEL)
 1027 WARREN AVE
 OSCEOLA, IA
 US 50213
 Contact: WADE MYERS
 wlm Myers@hormel.com
 T: (641)342-8043
 F: (641)342-8047

Certificate L2367
 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)