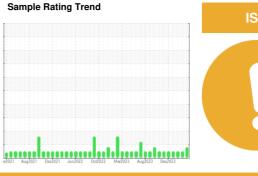


OIL ANALYSIS REPORT

HPP VESSEL 1 PUMP 1 (S/N B44049)

Hydraulic System

PETRO CANADA PURITY FG AW HYDRAULIC 46 (90 GAL)





Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

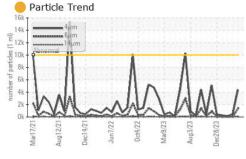
Fluid Condition

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

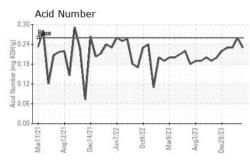
LIC 46 (90 GAL)		1/2021 Aug 20	21 Dec2021 Jun2022	Oct2022 Mar2023 Aug2023	Dec2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0916592	WC0909168	WC0887343
Sample Date		Client Info		26 Mar 2024	02 Mar 2024	30 Jan 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				ATTENTION	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>40	0	0	0
Chromium	ppm	ASTM D5185m	>4	0	0	0
Nickel	ppm	ASTM D5185m	>20	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>4	0	0	0
_ead	ppm	ASTM D5185m	>10	0	0	0
Copper	ppm	ASTM D5185m	>60	0	0	<1
Tin	ppm	ASTM D5185m	>4	0	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	0	0
Magnesium	ppm	ASTM D5185m		0	0	0
Calcium	ppm	ASTM D5185m		0	0	0
Phosphorus	ppm	ASTM D5185m		463	443	422
Zinc	ppm	ASTM D5185m		0	9	0
Sulfur	ppm	ASTM D5185m		590	509	482
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	3	3	2
Sodium	ppm	ASTM D5185m		1	1	<1
Potassium	ppm	ASTM D5185m	>20	2	0	0
Water	%	ASTM D6304	>0.05	0.003	0.00	0.002
opm Water	ppm	ASTM D6304	>500	27	0	20
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	4424	384	158
Particles >6µm		ASTM D7647	>1300	1344	74	51
Particles >14μm		ASTM D7647	>160	116	2	8
Particles >21µm		ASTM D7647	>40	37	1	2
Particles >38µm		ASTM D7647	>10	2	0	0
Particles >71μm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>20/17/14	19/18/14	16/13/9	14/13/10
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.26	0.23	0.26	0.23

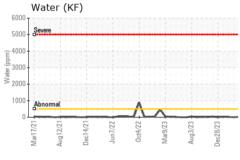


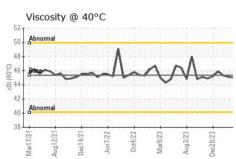
OIL ANALYSIS REPORT



Wai	ter (K	F)						
5000 Seve	re							
€ 4000								
3000 Mater (pp.)								
						HH		
Abno	rmal			Λ	_			
Mar17/21	Aug12/21	Dec14/21	Jun7/22	Oct4/22	Mar9/23	Aug3/23	Dec28/23	







VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
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	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	TES	method	limit/base	current	history1	history2

. 20.2						
Visc @ 40°C	cSt	ASTM D445	45.36	45.0	45.1	45.3

	AGES

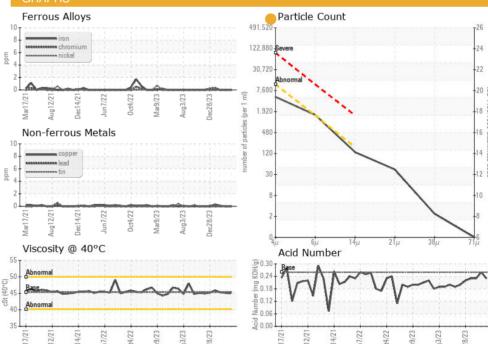




GRAPHS

Color

Bottom







Certificate L2367

Laboratory Sample No. Unique Number : 10954337

: WC0916592 Lab Number : 06134872

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

Received **Tested** Diagnosed

: 01 Apr 2024 : 02 Apr 2024

: 02 Apr 2024 - Wes Davis

US 50213 Contact: WADE MYERS wlmyers@hormel.com

OSCEOLA FOODS (HORMEL)

T: (641)342-8043 F: (641)342-8047

1027 WARREN AVE

OSCEOLA, IA

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)

Test Package : IND 2 (Additional Tests: KF)

Contact/Location: WADE MYERS - OSCOSC