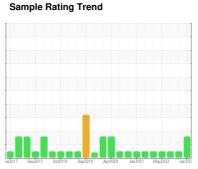


OIL ANALYSIS REPORT

PGWS 100 BOSS HAW-VRU-193A - MARK WEST ENERGY HARRISON WEST

Component







Recommendation

We advise that you follow the water drain-off procedure for this component. Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is a light concentration of water present in the oil.

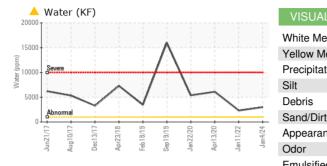
Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		UCH06058793	UCH05753666	UCH05680598
Sample Date		Client Info		04 Jan 2024	13 Jan 2023	17 Oct 2022
Machine Age	hrs	Client Info		38237	33768	32862
Oil Age	hrs	Client Info		2187	315	5155
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ATTENTION	NORMAL	NORMAL
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	3	2	6
Chromium	ppm	ASTM D5185m	>10	<1	0	<1
Nickel	ppm	ASTM D5185m		<1	<1	0
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>25	2	0	0
Lead	ppm	ASTM D5185m	>25	0	1	0
Copper	ppm	ASTM D5185m	>50	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	1	<1
Vanadium	ppm	ASTM D5185m		0	0	1
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	<1	<1
Manganese	ppm	ASTM D5185m		0	0	2
Magnesium	ppm	ASTM D5185m		0	1	0
Calcium	ppm	ASTM D5185m		0	2	4
Phosphorus	ppm	ASTM D5185m		1103	982	931
Zinc	ppm	ASTM D5185m		0	0	0
Sulfur	ppm	ASTM D5185m		1834	2017	1491
CONTAMINANTS	;	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<1	<1	1
Sodium	ppm	ASTM D5185m		34	8	10
Potassium	ppm	ASTM D5185m	>20	5	5	9
Water	%	ASTM D6304	>0.1	▲ 0.298		
ppm Water	ppm	ASTM D6304	>1000	2980		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.059	0.059	0.127



OIL ANALYSIS REPORT



VISUAL		method	ilmit/base		nistory i	nistory2
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	>0.1	0.2%	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
ELLIIN DRODERT	IEC	mothod	limit/baca	current	history1	history?

0.30			^			٨	
0.35 - 0.30 - 0.25 - 0.20 - 0.15 - 0.10 - 0.		A	[/\-	
0.20	1						
0.10	V	1		11	11	11	
0.05		1	~	V	V	V	_
0.00		<u>e</u>	19				Jan4/24

78.0 Visc @ 40°C cSt ASTM D445 77.9 78.7

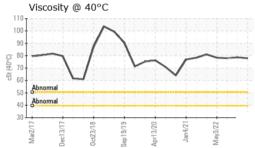
SAMPLE IMAGES

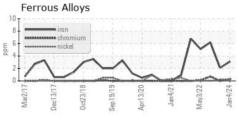
Color

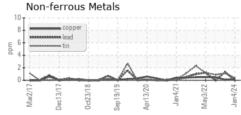
Bottom

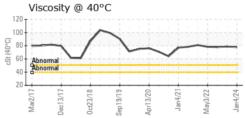


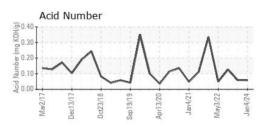












Contact/Location: SHAWN SMITH - UCPPCBUT





Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10830175

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : UCH06058793 : 06058793

Recieved Diagnosed

: 11 Jan 2024 : 14 Jan 2024 Diagnostician : Don Baldridge

Test Package : IND 2 (Additional Tests: KF)

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)

PPC LUBRICANTS

150 BONNIE DR BUTLER, PA US 16001

Contact: SHAWN SMITH ssmith@ppclubricants.com

T: (888)437-5823 F: (866)789-5823