

# **OIL ANALYSIS REPORT**

## Area WOOD PROCESSING EQUIPMENT PLANER BANDER

Hydraulic System Fluid SHELL AW HYDRAULIC S2 46 (--- GAL)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

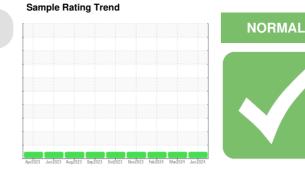
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

### Fluid Condition

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



SAMPLE INFORMA	TION	method	limit/base	current	history1	history2
Sample Number		Client Info		PE0003586	PE0000698	PE06098280
Sample Date		Client Info		07 Jun 2024	15 Mar 2024	22 Feb 2024
Machine Age h	nrs	Client Info		0	0	0
Oil Age h	nrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		15	16	15
lron p	opm	ASTM D5185m	>20	<1	0	1
Chromium p	opm	ASTM D5185m	>20	<1	<1	<1
Nickel p	opm	ASTM D5185m	>20	0	0	<1
Titanium p	pm	ASTM D5185m		0	1	1
Silver	pm	ASTM D5185m		0	0	<1
	opm	ASTM D5185m	>20	2	3	<1
Lead p	opm	ASTM D5185m	>20	0	<1	<1
Copper p	opm	ASTM D5185m	>20	6	<1	1
Tin p	pm	ASTM D5185m	>20	0	<1	<1
<b>Vanadium</b> p	opm	ASTM D5185m		0	<1	0
Cadmium p	opm	ASTM D5185m		0	<1	<1
ADDITIVES		method	limit/base	current	history1	history2
Boron p	opm	ASTM D5185m		<1	6	8
Barium p	opm	ASTM D5185m		0	<1	5
Molybdenum p	opm	ASTM D5185m		0	<1	1
Manganese p	opm	ASTM D5185m		0	0	<1
<b>Magnesium</b> p	opm	ASTM D5185m		11	9	9
Calcium p	opm	ASTM D5185m		56	315	304
Phosphorus p	opm	ASTM D5185m		374	362	333
<b>Zinc</b> p	pm	ASTM D5185m		462	439	434
Sulfur p	opm	ASTM D5185m		2367	2088	2169
		ام م مالد معر	11 1. 0			h ta ta min
CONTAMINANTS		method	limit/base	current	history1	history2
	opm	ASTM D5185m		current 2	history1 2	nistory2 2
Silicon p	opm opm					
Silicon p Sodium p		ASTM D5185m	>15	2	2	2
Silicon p Sodium p	opm opm	ASTM D5185m ASTM D5185m	>15	2 0	2 9	2 5
Silicon p Sodium p Potassium p FLUID CLEANLINE	opm opm	ASTM D5185m ASTM D5185m ASTM D5185m	>15 >20	2 0 1	2 9 1	2 5 <1
Silicon p Sodium p Potassium p FLUID CLEANLINE Particles >4µm	opm opm	ASTM D5185m ASTM D5185m ASTM D5185m method	>15 >20 limit/base	2 0 1 current 257	2 9 1 history1	2 5 <1 history2
Silicon p Sodium p Potassium p FLUID CLEANLINE: Particles >4µm Particles >6µm	opm opm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D7647	>15 >20 limit/base >5000	2 0 1 current	2 9 1 history1 368	2 5 <1 history2 165
Silicon p Sodium p Potassium p FLUID CLEANLINE Particles >4µm Particles >6µm Particles >14µm	opm opm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300	2 0 1 current 257 66	2 9 1 history1 368 96	2 5 <1 history2 165 46
Silicon p Sodium p Potassium p FLUID CLEANLINE Particles >4µm Particles >6µm Particles >14µm Particles >21µm	opm opm	ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160	2 0 1 current 257 66 8	2 9 1 history1 368 96 9	2 5 <1 <u>history2</u> 165 46 4
Silicon p Sodium p Potassium p	opm opm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	>15 >20 limit/base >5000 >1300 >160 >40 >10	2 0 1 <u>current</u> 257 66 8 2	2 9 1 history1 368 96 9 9 4	2 5 <1 165 46 4 1

ISO 4406 (c) >19/17/14

15/13/10

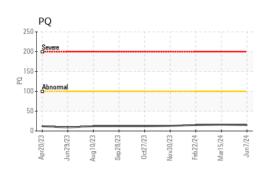
**Oil Cleanliness** 

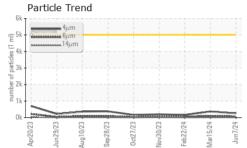
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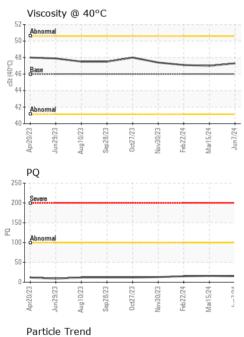
16/14/10

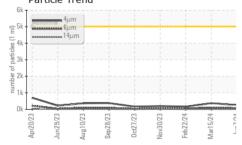


# **OIL ANALYSIS REPORT**









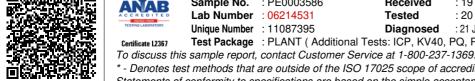
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045		0.27	0.29	0.28
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	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	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	47.3	47.0	47.1
SAMPLE IMAGES	3	method	limit/base	current	history1	history2

Color

Bottom



GRAPHS Ferrous Alloys Particle Count 491,520 122,880 n chi 30,72 -20 ep28/73 Anr/20/73 Aug 10/23 lar15/24 477/7 4406 per 1 1,92 18 1999 Cle Non-ferrous Metals 480 16 120 14 30 12 8 Apr/20/73 Aug10/23 7/74 Sen 28/7 far15/2 Viscosity @ 40°C Acid Number (<sup>B</sup>/H0.40 55 T Ab () 50 ВШ ਲੁੱ 45 Acid N 0.00 40 Jun7/24 eb22/24 Mar15/24 ua10/23 30/73 Mar15/24 un7/24 ua10/23 ep28/23 eb22/24 : WearCheck USA - 501 Madison Ave., Cary, NC 27513 WEYERHAEUSER - RAYMOND LUMBER : PE0003586 Received : 19 Jun 2024 1740 51 ELLIS ST Tested : 20 Jun 2024 RAYMOND, WA : 21 Jun 2024 - Don Baldridge



Laboratory Sample No.

Lab Number : 06214531 Unique Number : 11087395 Test Package : PLANT ( Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN )

Diagnosed

US 98577 Contact: JOHNNY DOMINGUEZ

johnny.dominguez@weyerhaeuser.com

T: F:

\* - 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)

Report Id: WEYRAY [WUSCAR] 06214531 (Generated: 06/21/2024 14:01:50) Rev: 1

Submitted By: CURTIS CAMPISTEGUY