

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Area [152268] Machine Id ALBA HPU A MONT Component

Hydraulic System Fluid SHELL TELLUS 32 (245 LTR)

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 Number Client Info WC0779177 WC0779126 Sample Date Client Info 12 Mar 2024 14 Sep 2023 Machine Age mths Client Info 114 9 Oil Age mths Client Info 114 9 Oil Changed Client Info N/A Not Changd Sample Status Client Info N/A NORMAL NORMAL CONTAMINATION method Imil/base current history1 history1 Water WC Method >0.05 NEG NEG WEAR METALS method Imil/base current history1 history1 Iron ppm ASTM D5185(m) >20 0 Nickel ppm ASTM D5185(m) >20 c1 <1 Aluminum ppm ASTM D5185(m) >20 c1 <1 Copper ppm				Sep2023	Mar2024		
Sample Date Client Info 12 Mar 2024 14 Sep 2023	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age mths Client Info 336 28 Oil Age mths Client Info 114 9 Oil Changed Client Info N/A Not Changed Sample Status Imit/Dase current NoRMAL CONTAMINATION method Imit/Dase current history1 history1 Water WC Method >0.05 NEG NEG Weater WC Method >20 0 0 Nickel ppm ASIM D5185m >20 0 Nickel ppm ASIM D5185m >20 0 0 Aluminum ppm ASIM D5185m >20 c1 <1 Aluminum ppm ASIM D5185m >20 c1 <1 Aluminum ppm ASIM D5185m >20 0 0 Aluminum ppm ASIM D5185m </th <th>Sample Number</th> <th></th> <th>Client Info</th> <th></th> <th>WC0779177</th> <th>WC0779126</th> <th></th>	Sample Number		Client Info		WC0779177	WC0779126	
Oil Age mths Client Info 114 9 Oil Changed Client Info N/A Not Changed Sample Status Imit/base current history1 Water WC Method >0.05 NEG NEG WEAR METALS method limit/base current history1 history1 Iron ppm ASTMD58500 >20 <1 <1 WEAR METALS method limit/base current history1 history1 history1 Iron ppm ASTMD58500 >20 0 <1 Nickel ppm ASTMD58500 >20 0 0 Itanium ppm ASTMD58500 >20 2 2 Copper ppm ASTMD58500 >20 0 0 Antimony ppm ASTMD58500 0 0 AstMD58500	Sample Date		Client Info		12 Mar 2024	14 Sep 2023	
Oil Changed Sample Status Client Info N/A Not Changd CONTAMINATION method limit/base current history1 history1 Water WC Method >0.05 NEG NEG WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185(m) >20 <1	Machine Age	mths	Client Info		336	28	
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Sample Status nethod imit/base current history1 history1 CONTAMINATION method imit/base current history1 history1 Water WC Method >0.05 NEG NEG	Oil Changed		Client Info		N/A	Not Changd	
Water WC Method >0.05 NEG NEG	-				NORMAL	NORMAL	
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Sodium ppm ASTM D5185(m) <1							history2
Potassium ppm ASTM D5185(m) >20 <1			()	>15			
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Particles >6μm ASTM D7647 >1300 228 1148 Particles >14μm ASTM D7647 >160 13 71 Particles >21μm ASTM D7647 >40 3 18 Particles >38μm ASTM D7647 >10 1 1	FLUID CLEANLIN	NESS	method	limit/base	current	history1	history2
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Particles >38μm ASTM D7647 >10 1	Particles >14µm						
	Particles >21µm		ASTM D7647	>40	3	18	
Particles >71μm ASTM D7647 >3 1	Particles >38µm		ASTM D7647	>10	1	1	
	Particles >71µm		ASTM D7647	>3	1	1	
Oil Cleanliness ISO 4406 (c) >19/17/14 18/15/11 19/17/13			ISO 4406 (c)	>19/17/14			
:51:53) Rev: 1 Contact/Location: Gary Gazankas - ALC	:51:53) Rev: 1				Contact/Loc	ation: Gary Gaza	ankas - ALGMIS



OIL ANALYSIS REPORT

	ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.32	0.31	0.34	
VISUAL		method	limit/base	current	history1	history2
-	scalar					
				-		
	scalar	Visual*	NONE		NONE	
-	scalar	Visual*	NONE	NONE	NONE	
Silt 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	
			>0.05			
Free Water	scalar	Visual*		NEG	NEG	
FLUID PROPER	TIES	method	limit/base	current	history1	history2
visc @ 40°C ⊢	cSt	ASTM D7279(m)	32.32	31.3	31.1	
SAMPLE IMAGE	S	method	limit/base	current	history1	history2
Color						no image
Bottom					0	no image
GRAPHS						
Ferrous Alloys				Particle Count	:	
10iron1			491,520			Ī
E. 5.			122,880	Severe		
			30,720			
				Abnormal		-
ep 14/2			026'1 per 1.		••	
∞ Non-ferrous Meta	le		≥ <u>sa</u> ;t± 480-	1		
			ed			
¹⁰			120			
copper			agun 120			
			40 120 90 120 90 120			-
copper			agun 120			-
E 5.			120- E 30- 8-			
copper			agun 120			
Ed 5 Viscosity @ 40°C			and 120. 30. 47. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7	Acid Number	14µ 21µ	38µ 71µ
Ed 5 Viscosity @ 40°C			and 120. 30. 47. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7	Acid Number	14μ 21μ	
Viscosity @ 40°C			120 30 30 4 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		14μ 21μ	
Ed 5 Viscosity @ 40°C			120 30 30 4 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Acid Number	14μ 21μ	
Viscosity @ 40°C			100: 100:	Acid Number	14μ 21μ	
Viscosity @ 40°C			120 30 30 4 4 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Acid Number	14μ 21μ	
	Debris Sand/Dirt Appearance Odor Emulsified Water Free Water FLUID PROPER Visc @ 40°C SAMPLE IMAGES Color Bottom GRAPHS Ferrous Alloys	Yellow Metal scalar Precipitate scalar Silt scalar Debris scalar Sand/Dirt scalar Appearance scalar Odor scalar Emulsified Water scalar Free Water scalar Free Water scalar Full PROPERTIES Visc @ 40°C cSt SAMPLE IMAGES Color Bottom GRAPHS Ferrous Alloys	Yellow Metal scalar Visual* Precipitate scalar Visual* Silt scalar Visual* Debris scalar Visual* Sand/Dirt scalar Visual* Appearance scalar Visual* Odor scalar Visual* Odor scalar Visual* Emulsified Water scalar Visual* Free Water scalar Visual* Free Water scalar Visual* FLUID PROPERTIES method Visc @ 40°C cSt ASTM D7279(m) SAMPLE IMAGES method Color GRAPHS Ferrous Alloys Image: State S	Yellow Metal scalar Visual* NONE Precipitate scalar Visual* NONE Silt scalar Visual* NONE Debris scalar Visual* NONE Debris scalar Visual* NONE Debris scalar Visual* NONE Sand/Dirt scalar Visual* NORE Appearance scalar Visual* NORML Odor scalar Visual* NORML Emulsified Water scalar Visual* >0.05 Free Water scalar Visual* >0.05 Free Water scalar Visual* >0.05 Visc @ 40°C cSt ASTM D7279(m) 32.32 SAMPLE IMAGES method limit/base Color	Yellow Metal scalar Visual* NONE NONE Precipitate scalar Visual* NONE NONE Silt scalar Visual* NONE NONE Debris scalar Visual* NONE NONE Debris scalar Visual* NONE NONE Sand/Dirt scalar Visual* NONE NONE Appearance scalar Visual* NORML NORML Odor scalar Visual* NORML NORML Odor scalar Visual* NORML NORML Odor scalar Visual* >0.05 NEG Free Water scalar Visual* >0.05 NEG FLUID PROPERTIES method limit/base current Visc @ 40°C cSt ASTM D7279(m) 32.32 31.3 SAMPLE IMAGES method limit/base current Color Bottom <	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 Odor scalar Visual* NORML NORML NORML NORML Emulsified Water scalar Visual* >0.05 NEG NEG Free Water scalar Visual* NEG NEG NEG Visc @ 40°C cSt ASTM D7279(m) 32.32 31.3 31.1 SAMPLE IMAGES method limit/base current history1 Color Imatheter Imatheter

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