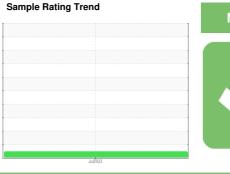


OIL ANALYSIS REPORT

NOT GIVEN [12712083] Machine Id ATLAS COPCO APF176980 - ARCH COAL

Component

Compressor





DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Moor

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil

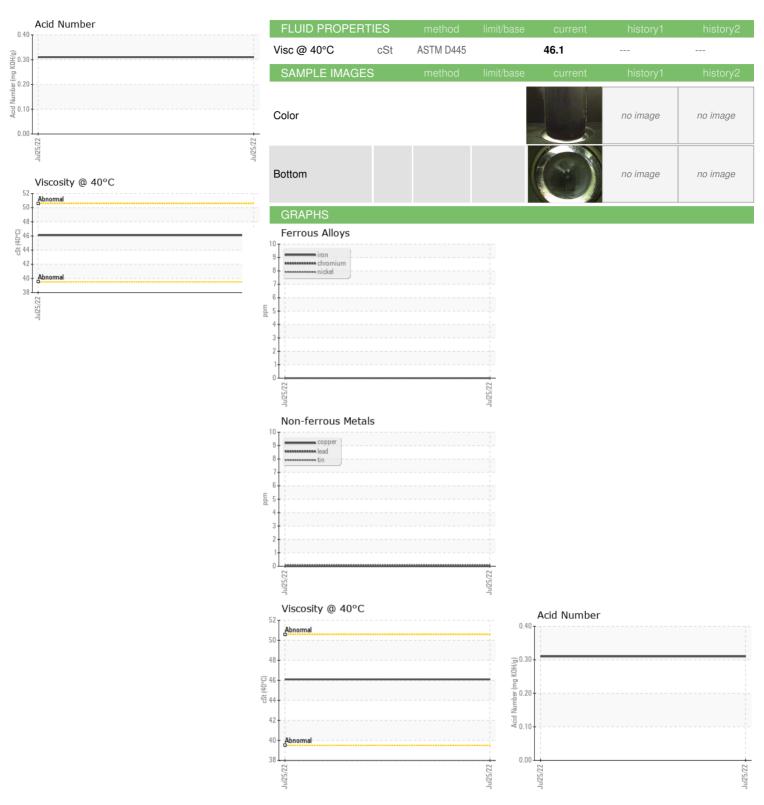
Fluid Condition

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 UCH05609017					Jul2022		
Sample Number Client Info UCH05609017	CANADI E INICODA	4471011		11 1. 11			
Sample Date Client Info 25 Jul 2022	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 2132	Sample Number		Client Info		UCH05609017		
Oil Age	Sample Date		Client Info		25 Jul 2022		
Client Info Not Changd Client Info NoRMAL Company Comp	Machine Age	hrs	Client Info		17125		
WEAR METALS	Oil Age	hrs	Client Info		2132		
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 0 Nickel ppm ASTM D5185m 0 Nickel ppm ASTM D5185m 0 Silver ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m >15 0 Aluminum ppm ASTM D5185m >65 0 Aluminum ppm ASTM D5185m >65 0 Copper ppm ASTM D5185m >10 -1 Vanadium ppm ASTM D5185m 0 Oamium ppm ASTM D5185m 0 Barium ppm	Oil Changed		Client Info		Not Changd		
Iron	Sample Status				NORMAL		
Chromium ppm ASTM D5185m >5 0 Nickel ppm ASTM D5185m 0 Titanium ppm ASTM D5185m 0 Silver ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m >65 0 Lead ppm ASTM D5185m >665 0 Copper ppm ASTM D5185m 0 Tin ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 0	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>50	0		
Titanium	Chromium	ppm	ASTM D5185m	>5	0		
Silver	Nickel	ppm	ASTM D5185m		0		
Aluminum	Titanium	ppm	ASTM D5185m		0		
Lead	Silver	ppm	ASTM D5185m		0		
Lead	Aluminum	ppm	ASTM D5185m	>15	0		
Copper ppm ASTM D5185m >655 0 Tin ppm ASTM D5185m >10 <1 Vanadium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 0 Calcium ppm ASTM D5185m 0 Phosphorus ppm ASTM D5185m 0 Sulfur ppm ASTM D5185m 0 Sulfur ppm ASTM D5185m 2 <	Lead			>65	0		
Tin	Copper		ASTM D5185m	>65	0		
Vanadium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 0 Calcium ppm ASTM D5185m 0 Phosphorus ppm ASTM D5185m 0 Sulfur ppm ASTM D5185m 0 Sulfur ppm ASTM D5185m 242 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 0 <					<1		
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ADDITIVES					-		
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Barium				limit/base		,	history2
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Zinc		ppm			-		
Sulfur ppm ASTM D5185m 242 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >35 2 Sodium ppm ASTM D5185m >20 0 Potassium ppm ASTM D5185m >20 0 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOHg ASTM D8045 0.31 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Silt scalar *V	·						
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >35 2 Sodium ppm ASTM D5185m >20 0 Potassium ppm ASTM D5185m >20 0 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.31 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE	Zinc	ppm	ASTM D5185m		0		
Silicon ppm ASTM D5185m >35 2 Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 0 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.31 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORML NORML <	Sulfur	ppm	ASTM D5185m		242		
Sodium ppm ASTM D5185m 0 Potassium ppm ASTM D5185m >20 0 FLUID DEGRADATION method limit/base current history1 history2 ASTM D8045 0.31 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORML NORML Appearance scalar *Visual NORML	CONTAMINANTS	;	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 0 FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.31 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORML NORML Appearance scalar *Visual NORML NORML Odor scalar	Silicon	ppm	ASTM D5185m	>35	2		
FLUID DEGRADATION method limit/base current history1 history2 Acid Number (AN) mg KOH/g ASTM D8045 0.31 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.1 NEG	Sodium	ppm	ASTM D5185m		0		
Acid Number (AN) mg KOHg ASTM D8045 0.31 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NORML NORML Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.1 NEG	Potassium	ppm	ASTM D5185m	>20	0		
VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONEYellow Metalscalar*VisualNONENONEPrecipitatescalar*VisualNONENONESiltscalar*VisualNONENONEDebrisscalar*VisualNONENONESand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG	FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
White Metal scalar *Visual NONE NONE Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NORML Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.1 NEG	Acid Number (AN)	mg KOH/g	ASTM D8045		0.31		
Yellow Metal scalar *Visual NONE NONE Precipitate scalar *Visual NONE NONE Silt 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 Emulsified Water scalar *Visual >0.1 NEG	VISUAL		method	limit/base	current	history1	history2
Precipitate scalar *Visual NONE NONE Silt 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 Emulsified Water scalar *Visual >0.1 NEG	White Metal	scalar	*Visual	NONE	NONE		
Precipitate scalar *Visual NONE NONE Silt 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 Emulsified Water scalar *Visual >0.1 NEG	Yellow Metal	scalar	*Visual	NONE	NONE		
Silt 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 Emulsified Water scalar *Visual >0.1 NEG		scalar	*Visual				
Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.1 NEG							
Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.1 NEG	Debris				NONE		
Appearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.1 NEG	Sand/Dirt				NONE		
Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.1 NEG							
Emulsified Water scalar *Visual >0.1 NEG							



OIL ANALYSIS REPORT







Laboratory Sample No. Lab Number Unique Number : 10078498

: UCH05609017 : 05609017 Test Package : IND 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 04 Aug 2022

Diagnosed : 05 Aug 2022 Diagnostician : Doug Bogart **TOTAL EQUIPMENT COMPANY**

200 SMILEY DR SAINT ALBANS, WV US 25177

Contact:

T:

F:

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)